

Urban Green Spaces and COVID-19: An Exploration of Park Use and Sense of Belonging in NYC

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ABSTRACT

Our project explores park use and feelings of belonging within local NYC parks through field observations and online survey data. Observational data shows forested areas were used less frequently than pedestrian areas. Survey data suggests park use and sense of belonging is higher than before the pandemic. However, park use, overall satisfaction, and sense of belonging varies by neighborhood median income.

INTRODUCTION

Purpose: This project explores park use and sense of belonging within parks/urban green spaces in NYC currently, and before the COVID-19 pandemic. The purpose of this project is to collect and assess data on why some people feel welcome and safe in green spaces, when others feel unwelcome. We take into account the current pandemic context, which has the potential to change the relationship people share with these spaces and others present within them (Honey-Roses et al., 2020).

Relevance: This topic is relevant because the pandemic forced states into a lockdown; however, in NYC parks remained open. Parks can be one of the sole outlets open to the public that can improve people's mental and physical health (Barton et al., 2009). However, these public spaces may not be utilized because of accessibility issues or feeling discouraged and unwelcome in local green spaces.

METHODS

Data Collection: Field observations were conducted with an observation sheet (adapted from NYC Citywide Social Assessment; Auyeung et al., 2013). We completed 4 visits across 3 parks in pairs/group for ~1hr/visit. Additionally, an online survey was administered to collect quantitative and qualitative data.

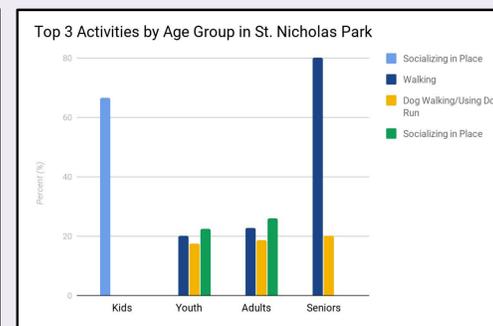
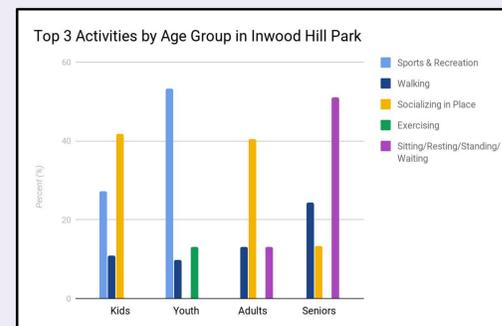
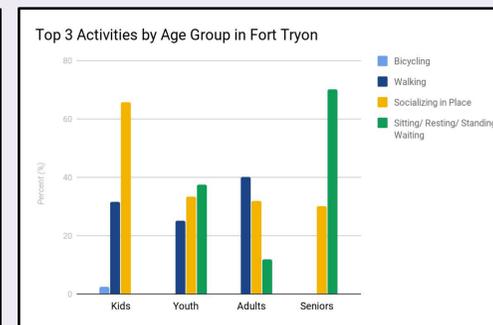
TOTAL SURVEY PARTICIPANTS		138	
Gender			
Female	77% (106)	Non-binary	1% (2)
Male	19% (26)	Prefer not to say	3% (4)
Age			
18-24	23% (32)	45-54	11% (15)
25-34	26% (36)	55-65	12% (17)
35-44	21% (29)	65-80	7% (9)
Race			
White or Caucasian	53% (73)	Neighborhood Median Income**	M = \$67,500
BIPOC and/or Multiracial	47% (65)	< \$34,999	(13)
Asian or Pacific Islander	11% (15)	\$35,000-49,999	(5)
Black or African American	6% (8)	\$50,000-64,999	(75)
Hispanic or Latino	18% (25)	\$65,000-79,999	(16)
Middle Eastern or N. African	.5% (1)	\$80,000-94,999	(5)
Multiracial*	11% (15)	> \$95,000	(24)
Other	.5% (1)	*participants who checked more than one race	
Education			
Graduate degree	46% (63)	College degree	34% (47)
Professional degree	4% (6)	High School	16% (22)
**estimated using the American Communities Survey 1-year estimates (2005-2018) by zip code and neighborhood (Citizen's Committee for Children, 2020); US Census Data not available by zip code			

Statistical Analysis: Frequencies were conducted for field observations then compared between parks. Means and correlations were run using SPSS to determine differences between responses before the pandemic, during lockdown, and currently. **Content Analysis:** Open, inductive coding was used to identify patterns and major themes in participants' open-ended responses.

FINDINGS

Field Observations

	St.Nicholas Park	Inwood Hill Park	Fort Tryon Park
Top 3 activities by percentage	26.6% Socializing in Place 24.3% Walking 17.5% Dog Walking	27.8% Socializing in Place 21.3% Sports & Recreation 13.3% Walking & 13.3% Sitting	39.0% Socializing in Place 34.1% Walking 16.0% Sitting/ Resting
Total percentage of visitors by race	43.0% Black Visitors 31.6% White Visitors 22.6% Hispanic Visitors 3% Asian Visitors	64.5% Hispanic Visitors 23.1% White Visitors 7.6% Black Visitors 4.7% Asian Visitors	48.9% Hispanic Visitors 44.5% White Visitors 5.0% Black Visitors 2.0% Asian Visitors
Total percentage of visitors by age	69.5% Adult Visitors 22.6% Youth Visitors 5.0% Kid Visitors 3.0% Senior Visitors	43.2% Adult Visitors 27.2% Youth Visitors 16.3% Kid Visitors 13.3% Senior Visitors	60.4% Adult Visitors 20.9% Kid Visitors 13.2% Youth Visitors 5.0% Senior Visitors
Total visitors	177 visitors	338 visitors	182 visitors



- **Activities across Parks:** In St. Nicholas Park, Inwood Hill Park, and Fort Tryon Park, the most common activity observed was socializing in place.
- **Use of Forested vs. Pedestrian/Hybrid Zones:** In Inwood Hill Park and Fort Tryon Park, we found that forested zones/hybrid zones are not being used as much as the pedestrian zones.

Park Use

- In a typical two-week period, participants reported **spending more time in parks currently** ($M=3.86$), compared to during lockdown ($M=3.35^{**}$) and before the pandemic ($M=3.62$).
- **Higher income neighborhoods** reported **spending more time in parks** than those in lower income areas currently ($r=.233^{**}$) and pre-pandemic ($r=.244^{**}$) and reported **higher overall satisfaction** with their **local parks** currently ($r=.288^{**}$) and before pandemic ($r=.308^{**}$).

Sense of Belonging

- Participants reported a **stronger sense of belonging** to local parks currently ($M=3.39$), compared to before ($M=3.26$); **higher for Whites** ($M=3.43_{cur} | 3.33_{pre}$) vs. BIPOCs/Multiracials ($M=3.15_{cur} | 3.03_{pre}$).
- **Higher income neighborhoods** reported stronger sense of belonging currently ($r=.242^{**}$) and before pandemic ($r=.276^{**}$).
- Content analysis suggests **visiting often** and **accessibility** play a role (see right Table.)

Positive influences	Negative influences
Visiting often	Not visiting
Access/proximity to parks in community	No parks in the community
Long-time resident of neighborhood	New to the neighborhood
Growing up near a park	Too small of a park
Well-maintained parks/clean	Poor Maintenance/dirty
"Escape" from city-life	COVID-19 fears
Enjoying/love of nature	Crowded
Park feels safe	Park feels unsafe
Volunteering/active community member	

Changes in Engagement/Relationship with Parks

Content analysis further supported our finding that people's sense of belonging with local parks/green spaces had strengthened. The majority of people described their relationship with parks having changed since March as a function of **increased appreciation, increased usage, and bettering one's physical/mental health.**

"It has been a nice way to help relieve the stress of living during a pandemic and to social distance while doing so. My child can also play and exercise outdoors, since we don't have access to an backyard space."

However, a few participants did describe their relationships as being weaker due to fear and pandemic safety issues; while others reported relationships have not changed.

CONCLUSION

In conclusion, we found that people are spending more time in parks and have a stronger sense of belonging to local parks than before the pandemic. We also found that people in higher income neighborhoods were spending more time at parks and were more satisfied with local parks than those in lower income areas. This suggests that lower income neighborhoods may have less access and lower quality parks, which is worth exploring further. Finally, data suggests that overall, relationships with parks has become more positive; however some participants were fearful about pandemic safety.

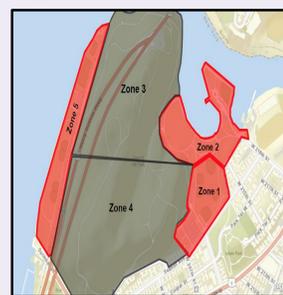
Park Zoning and Images



St. Nicholas



Fort Tryon



Inwood Hill Park



Acknowledgments

A big thank you to Barry, Thomas, Alyssa, Julia, Jennifer, and WaveHill for guiding us through various parts of our project and helping us complete the project and have a great learning experience. We also thank Svetlana, who helped us with statistical analysis.