

NYC GREEN FUND LITERATURE REVIEW

CENTRAL PARK CONSERVANCY
INSTITUTE FOR URBAN PARKS

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Executive Summary

In both good times and bad, the New York City Parks system inspires both awe and criticism. Awe for the array of parks and natural areas that occupy nearly 30,000 acres in all five boroughs, for some of the first destination parks created in the 19th century, and for some of the most exciting parks of today. Criticism for the perennial problem of securing the funding necessary to keep those parks healthy and functioning, especially in more densely populated, lower-income neighborhoods and in times of economic crisis. However, New York City has risen to the challenge of decreasing investment before—during the Great Depression, following decades of disinvestment beginning in the late 1970s, as the birthplace of the conservancy movement, and during the great recession of 2007–2009.

That said, while over 40 park conservancies and nonprofits raised and spent more than \$232 million in their last year, it is only 12 percent of the total amount spent on operating, maintaining, and improving New York City Parks. A full 88 percent of all park spending comes from the New York City budget. And in FY 2021, NYC Parks is dealing with the effects of a 14 percent operating budget cut that has resulted in a 45% reduction in workforce from this time last year¹. These cuts in funding reflect a common perception among decision-makers in cities across the country: parks are still seen as a “nice to have” versus critical infrastructure². (New York City spends 0.6 percent of its annual budget on parks, less than half compared to large U. S. cities.³)

New Yorkers flocked to parks as the pandemic deepened, anecdotally illustrating some of the many benefits parks provide, including social, health, economic and ecosystem services. Recent studies can put specific dollar amounts on the increase in property values, the health benefits to residents, the spending by visitors, and the amount of stormwater absorbed by well-maintained parks. It is a critical time to make the case for the importance of the park system to the recovery and resiliency of the city.

Furthermore, over 800 groups, many of them volunteer-only with little or no budget, work collaboratively to maintain and improve a wide variety of public spaces, filling in gaps in municipal funding. These groups care for not just city parks, but also a broad array of public spaces, from plazas and streetscapes to community gardens and vacant lots, touching multiple agency jurisdictions. They work to beautify and improve their neighborhoods through a variety of grants, community engagement assistance, project planning and collaboration with a host of city agencies. Groups like the City Parks Foundation, Partnerships for Parks, Citizens Committee of New York City, GreenThumb NYC, and New Yorkers for Parks help to support these networks, working collaboratively with city and state government as well as residents and volunteers throughout the city.

That collaboration has also become increasingly critical. NYC Parks budget cuts mean less frequent daily service throughout the city, but especially in denser neighborhoods with smaller and fewer parks. More park maintenance will be deferred, despite the recent successes of the Community Parks Initiative and Parks without Borders. City departments and nonprofits are struggling to find ways to fund maintenance of green streets and street trees, as well.

This report provides answers to a specific set of questions raised by advocates, funders and volunteers to address how best to support park organizations in the wake of the pandemic. While we can show many

¹ <https://www.nytimes.com/2020/08/27/nyregion/nyc-parks-trash.html>

² <https://www.nrpa.org/publications-research/research-papers/local-government-officials-perceptions-of-parks-and-recreation/>

³ See funding comparisons for selected U. S. cities, p. 30.

individual data points, as well as highlight research that underscores economic and health impacts, an overall “parks benefit” number is yet to be determined—it requires more research. But we do know that a robust combination of increased public and private funding is required to sustain and improve the capacity of essential green infrastructure while providing benefits to a city that needs its green space more than ever.

Specifically, we would highlight:

- Parks and green spaces provide significant benefits when they are well-maintained, including social, health, economic and green infrastructure benefits. Parks and green spaces provide many of these benefits simultaneously. A comprehensive approach to their management, along with an elevated profile, would help ensure those benefits are maximized.
- Investment in parks has not been equally distributed across the city. Smaller parks located in outlying, denser neighborhoods continue to receive less in both capital and maintenance and operations spending compared to larger parks.
- Public funding for parks generally rises and falls with economic cycles. While private funding in New York City is impressive compared to other cities, overall, it remains a relatively small part of the total.
- Existing collaborations between public and nonprofit agencies working in public spaces (parks, streets, neighborhood plazas) offer great examples for learning, but the complexity and sheer size of New York City makes building on these successes challenging.

Introduction

New York City has over 30,000 acres of parkland, with a wide variety of parks, forests, open spaces and linear parks (trails or greenways). A host of public, nonprofit, for-profit organizations, and individual volunteers work to program, maintain and improve these parks and greenspaces. In the months since COVID-19 fundamentally altered urban living, these organizations have contended with unprecedented park use in the face of budget cuts, requiring greater support.

The Central Park Conservancy Institute for Urban Parks (Institute) was asked by the founders of the NYC Green Relief and Recovery Fund to perform a literature review on a series of critical park-related issues in New York City. The goal of this review was to inform the development of a request for proposal (RFP) for a third round of green funding to be provided in the fall of 2020.

Specifically, the Institute was asked to look at four areas:

1. **Unrealized Benefits** of parks and open spaces, including *social benefits, green infrastructure/ecosystem services, health benefits and economic benefits*.
2. **Equitable Access** to parks, with a focus on historically underserved areas of the city.
3. **Systems Change and Funding Models** of parks and public spaces:
 - An examination of the *critical organizational players*, a determination of where silos exist, and an assessment of how *planning* works in NYC Parks compared to other cities.
 - An examination of how other public services, such as the NYC Public Library system, have been able to successfully acquire additional funding.
4. **Duplication of Services** in nonprofits, and where opportunities for *collaborative and shared services* can be realized.

Methodology

In late August and the first part of September, the Institute interviewed stakeholders and researchers to obtain advice and lessons learned, and collected a large number of reports, papers and presentations. All material gathered and reviewed during the course of research is detailed at the end of this report. In addition, we have cited, via footnotes, important details, additional sources, and comments that we think are germane.

Of note, a number of these topics/organizations have active research and analysis projects underway, including New Yorkers for Parks, the Natural Areas Conservancy, the US Forest Service, the Nature Conservancy, and the High Line Network⁴. Information will change and be updated over the course of the next few months, thus, *what we present in this report is a “snapshot” in time*.

Should this report be considered as a reference for additional discussions or possible policy or advocacy proposals beyond October 2020, we recommend that an update to the report be undertaken to ensure that the latest information is reflected in the review. Specifically, New Yorkers for Parks, The Natural Areas

⁴ The High Line Network is working with Stephen Grey and his graduate class at Harvard Graduate School of Design to provide analysis and recommendations for a number of the High Line Network parks nonprofits.

Conservancy, the High Line Network, the Nature Conservancy, and the U. S. Forest Service should be consulted to obtain final reports on their latest research in the coming months.

1. Unrealized Benefits of Urban Parks

The COVID-19 pandemic has shown, in New York and many other U. S. cities, that public spaces—ranging from parks to sidewalks to bike lanes and streets (especially ones re-purposed either temporarily or permanently)—are incredibly important to city residents and have taken on added importance through the different stages of the pandemic. The restrictions on usage and social distancing requirements in public spaces have laid bare the challenges and limitations of public spaces in dense urban areas, especially in poorer and historically underserved parts of cities.

One of the bigger challenges facing New York City is that sidewalks, bike lanes, and streets connecting to plazas, parks, and natural areas (as well as additional connectors like public transportation, parking, etc.) aren't thought of as a system. In many cities around the world, this broader perspective has been building and gaining traction. Indeed, while New York has implemented a series of open streets including expanded options for biking, walking, play, and outdoor dining, other cities have been experimenting broadly, as well. Seattle, Oakland, Denver, and Minneapolis are frequently cited examples. European cities, especially, have expanded their already substantive options and are, by and large, still ahead of U. S. cities.

KEY TAKEAWAY: Approaching open space (the greater public realm) as a comprehensive network at the city level allows for greater integration of services, maximized use of (limited) resources, and enhanced opportunities to address issues of equity.

Parks in U. S. cities have seen widespread use since late winter shifting to weekend summertime levels of use, beginning in March. Additionally, cost-cutting began immediately, with full-time staff furloughed or re-assigned to assist with outdoor operations and maintenance duties, and seasonal staff not hired (at least in the usual numbers) to save money.

In recent years, park systems have increasingly relied on earned income via events, programming, rental fees, and concessions income to help make ends meet. This too largely evaporated until very recently. Most events are virtual and concessions have limits on the numbers that they can serve. Coupled with dropping tourism in cities like New York, Boston, and Philadelphia, earned income has nearly disappeared.

So, to more and more people, the benefits of parks have become increasingly apparent at the same time that budget cuts and decreased earned income have undercut the resiliency of our park systems, likely for years to come. The impacts of these issues will have ripple effects beyond just park conditions. Looking at the unrealized (or under-recognized) benefits of parks in New York, as well as other cities, paints a more comprehensive picture of what is at stake.

In NYC, parks receive about 0.6 percent of the total New York City budget in a good year⁵, bolstered by a growing group of 40 nonprofits who work alongside NYC Parks. These groups raise funds, support capital

⁵ New York City Mayor and Council agreed to an \$84 million reduction in the New York City Parks and Recreation budget for fiscal year 2021, which began on July 1, 2020 and concludes June 30, 2021. Cuts to NYCHA and the Department of Sanitation are also having an impact on parks and public spaces.

projects, and help in a wide variety of ways by supporting programming, operations, and maintenance. Approximately 25 of these organizations have formal agreements with the City.

But there is a much broader network of groups and individuals that provide stewardship to New York's public spaces, ranging from sidewalks with landscaped trees in tree pits to green streets to playgrounds, parks and extensive natural areas. Based on our research to date and bolstered by case studies, this is a more integrated network than one would first believe. As documented by the U. S. Forest Service's STEW-MAP project⁶, over 800 groups, with over 540,000 volunteers and staff steward over 205,000 acres⁷ across New York City. Their budgets total \$800 million and they help support, advocate for, and work to improve our public spaces and the many unrealized benefits of parks—including social benefits, green infrastructure, health benefits, and economic benefits—across New York City. Below, we look into each of these in greater detail.

KEY TAKEAWAY: Though financial resources are limited, a large network of individuals and organizations can be approached to advocate on behalf of and outright care for open spaces in New York City.

The Social Benefits of Parks

Parks as well as streets, specifically sidewalks, provide countless opportunities for people of all ages to interact and socialize through planned activities with families, friends and neighbors, or chance meetings at programs and events held in parks. The current pandemic greatly limits how planned activities can take place, and while small gatherings with appropriate distancing and masks have resumed, larger events and programming including recreational, arts, and culture activities are operating in a much more limited fashion.

Still, news stories and emerging research have continued to show the importance of parks to people in a wide variety of ways. For many, the reduced or limited interactions with friends and coworkers, has greatly reduced the frequency and duration of face to face contact. As the pandemic has lessened in New York, more opportunities for engagement have emerged and our public spaces have taken on new uses, ranging from small informal gatherings to dining and socializing. More pressure has been put on these public spaces as local and state governments have shut or curtailed the operations of bars, gyms, and other indoor and outdoor performance spaces. To put it simply, there are fewer places to go for recreation and socialization and our parks and other public spaces are absorbing the overflow. They seem more crowded because they are more crowded! This is especially true for denser neighborhoods with more multi-family residences and fewer yards, courtyards, or other "open" spaces.

Additionally, parks, gardens, plazas, and streets, which we'll refer to collectively as open spaces have historically served as venues for public protest and public expression of views. Over the course of the past four months, they have increasingly served as rallying points for protests against police brutality and racism⁸, despite the mandates against large gatherings. Based on data that has been shared up to this

⁶ Laura Landau, Lindsay K. Campbell, Michelle Johnson, Erika Svendsen, Holly Berman; STEW-MAP in the New York City Region: Survey Results of the Stewardship Mapping and Assessment Project 2017. US Forest Service, June 2019. <https://www.nrs.fs.fed.us/pubs/58168>

⁷ The 205,000 acres inside New York City includes parks and natural areas, but also community gardens, streetscapes, waterfronts and water bodies, including the Harbor, Jamaica Bay, the East River and Hudson River.

⁸ Amid Protest and Pandemic, Parks Show Their Worth. Patrick Sisson, 6/4/20, Bloomberg CityLab: <https://www.bloomberg.com/news/articles/2020-06-04/how-city-parks-can-to-turn-crisis-into-opportunity>

point, these gatherings don't seem to have been super-spreader events, unlike other unsanctioned events or gatherings, such as weddings and family reunions, that have resulted in Covid-19 outbreaks⁹.

Parks and other public spaces also serve as places to engage socially, especially for older populations. 14 percent of New Yorkers are 65 and older, and this percentage is expected to increase by 41 percent in the next 20 years¹⁰.

Furthermore, social collaborative networks are responsible for widespread community support, advocacy, and programming, with a focus ranging from individual tree pits to community gardens to large parks, especially in New York City. As documented in the U.S. Forest Service STEW-MAP project, hundreds of groups with hundreds of thousands of volunteers and staff work collaboratively to maintain and improve public spaces. A research paper in development by the U. S. Forest Service highlights the importance of these social networks and their relation to civic society¹¹. [*We discuss these collaborative networks in Part 3 (System Change and Funding Models) and Part 4 (Duplication of Services) in this paper.*] This is one form of social infrastructure, a term coined and explained by Eric Klinenberg in several works, most recently his 2018 book, *Palaces for the People*. Klinenberg documented the effects of a Chicago heat wave in 1995 that resulted in many seniors becoming isolated during widespread power outages, trapped in their high-rise apartments without adequate food, water or cooling alternatives. A lack of social, neighborhood, or civic systems to engage and check on those isolated resulted in a high number of deaths. The change to this Chicago neighborhood was not recent—it reflected incremental changes in both physical and social structure over the prior 50 years. This stands in contrast to intact neighborhoods (regardless of income, ethnicity or relative wealth) that have dealt with the effects of other natural disasters, working together to help out and check on neighbors in times of crisis, including the current Covid-19 pandemic.

Klinenberg refers to these intact systems as “social infrastructure: the physical places and organizations that shape the way people act.”¹² In many cities across the United States, parks and recreation staff, working with local public health officials, have sought to fill this gap. In the past six months, they have been tasked with delivering food, water and other essentials, as well as performing wellness checks with seniors who could no longer use in-person services.¹³ Parks can serve as a critical link in the development of these important community networks.

KEY TAKEAWAY: Open spaces provide places to gather, to process and express concern about larger societal issues, and come together to collectively care for our communities. They support the creation of critical neighborhood networks that allow residents to better weather stresses and crises.

The Benefits of Green Infrastructure

In many ways and for many years, New York City has been ahead of a rapidly growing national trend to introduce “greening” elements in and around streets, plazas, and parks to provide additional natural spaces, and address the challenges of climate change-driven heat, air and water management issues. When

⁹ <https://www.bostonglobe.com/2020/08/29/nation/how-an-intimate-wedding-rural-maine-led-states-largest-covid-outbreak-disaster-that-spread-hundreds-miles/>

¹⁰ <https://www1.nyc.gov/assets/doh/downloads/pdf/episrv/2019-older-adult-health.pdf>

¹¹ U. S. Forest Service: Research paper in development

¹² Klinenberg, Eric: *Palaces for the People: How Social Infrastructure can help fight Inequality, polarization, and the decline of civic life*. 2018. Page 5.

¹³ McCabe, Charlie: Unpublished Interviews with Parks Directors in Minneapolis, Brooklyn Park, Denver, Colorado Springs, Austin, Miami-Dade County. June-August, 2020.

combined with existing parks and other open spaces, the net benefits for improving air, managing stormwater, providing heat island reductions, and storing carbon can bring substantial benefits to New York. While we are not able to provide a total NYC calculation at this time, using the comparable sized city park system of Los Angeles, The Trust for Public Land determined in 2017 that the 37,405 acres of parkland provided stormwater retention valued at \$8.03 million annually. Park trees and shrubs removed air pollutants valued at \$1.58 million annually.¹⁴

Beginning in 2003, New Yorkers for Parks (NY4P), started evaluating park conditions with a focus on maintenance as well as how accessible parks were for the neighborhoods that they served. Both the Report Card on Parks and the Open Space Index Reports provide specific detail on a range of park features and amenities. The Report Cards on Parks include numerical scores on trees, lawns, natural areas and water bodies for parks around the city (see the 2016 spotlight on the Community Parks Initiative as an example¹⁵). The Open Space Index focused on passive open space, community gardens, and urban tree canopy, among others (see the 2019 report for Bushwick, Brooklyn as an example¹⁶).

NYC Parks had been performing park evaluations, but only releasing borough-level results. Having individual park analyses triggered a focus on improving and expanding green infrastructure features and benefits, in concert with several programs initiated by multiple departments across the city. These included an expansion of Green Streets, MillionTreesNYC, a re-imagining of school playgrounds, and a separate effort to research and evaluate the natural areas of NYC parks, which make-up one-third of the 30,000 acres of parkland across the five boroughs. We'll cover each of these efforts in turn.

Green Streets

Since 1996, several New York City departments, namely NYC DOT, NYC Department of Environmental Protection, and NYC Parks, have collaborated on designing, installing and maintaining over 2,500 Green Streets¹⁷. The Green Streets Initiative was designed to provide greening and cooling effects, and to capture stormwater runoff through the installation of groundcover and trees in traffic medians and triangles. This is part of a broader \$1.5 billion commitment by the NYC Department of Environmental Protection for green infrastructure in the city¹⁸. Many of these installations are taking place in residential neighborhood streets and in conjunction with similar improvements in parks and as shown in Figure 1, below; blue dots denote completed design, yellow dots are locations under construction, and green dots denote a completed feature.

¹⁴ The Trust for Public Land: The Benefits of the Public Park and Recreation System in the City of Los Angeles, California.

<https://www.tpl.org/econbenefits-losangeles>

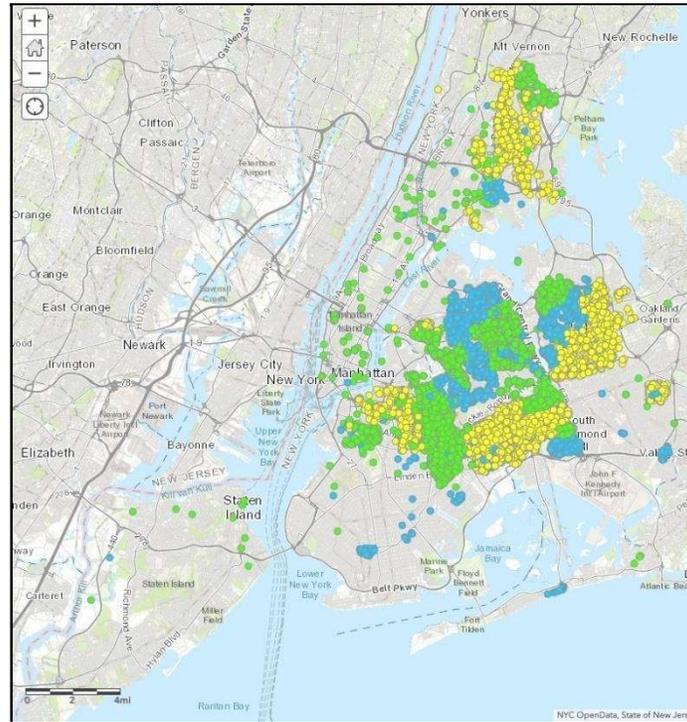
¹⁵ http://www.ny4p.org/client-uploads/pdf/Report-Cards/NY4P_Report_Card-CPI2016.pdf

¹⁶ http://www.ny4p.org/client-uploads/pdf/OSI/NY4P_Bushwick_Open_Space_Index.pdf

¹⁷ NYC Green Streets program: <https://www.nycgovparks.org/greening/green-infrastructure>

¹⁸ Nature Goals NYC white paper, p 16, https://naturegoals.nyc/wp-content/uploads/2018/10/nac_naturegoals_design_full_161025-compressed.pdf

Figure 1: NYC DEP Green Infrastructure Projects, September 2020.



MillionTreesNYC

The MillionTreesNYC Initiative planted trees in all five boroughs, with a specific focus on replenishing the urban forest in NYC parks, but also in and around prominent buildings, including schools, churches, and public housing¹⁹. The New York Restoration Project (NYRP) was the primary nonprofit partner for tree installation, initial care and monitoring²⁰. The Centre for Public Impact provided a case study on the effectiveness of the completed program, which gave the entire effort strong to good ratings²¹. Tree planting and tree care offer shade (mitigating heat islands), absorb stormwater runoff, and filter CO² as well. The city continues to support efforts to adopt, care for, and map trees.

According to statistics provided on the NYC Tree Map website (<https://tree-map.nycgovparks.org>), NYC street trees provide \$10.66 million in stormwater management, conserve \$83.69 million in energy, and remove \$6.58 million in air pollutants.

Urban Forests and Wetlands

The Natural Areas Conservancy has spent the last decade researching and documenting the condition and significance of nearly 10,000 acres of forested areas and wetlands across the city. This is approximately one-third of NYC park land. They found intact stands of tree species that the city did not know were there, and documented the challenges of managing forested areas in a time of deferred maintenance and climate change. Furthermore, the Conservancy unveiled plans to manage forests and improve public access by

¹⁹ <https://www.nycgovparks.org/trees/milliontreesnyc>
²⁰ <https://www.nyrp.org/blog/nyc-just-planted-1-million-trees-heres-how-we-did-it>
²¹ <https://www.centreforpublicimpact.org/case-study/milliontreesnyc/>

formalizing the city's 300-mile network of existing trails in natural areas. The benefits of natural areas, given the pandemic, have not gone unnoticed; recent press coverage on the importance of those benefits has also expressed strong concerns about reduced staff and resources to care for increasingly appreciated natural areas²².

Carbon Capture Benefits

Continuing work from the Natural Areas Conservancy, the US Forest Service and the Nature Conservancy focused on New York City, and in some cases, New York State as well, have shown that natural and forested areas can be effective carbon sinks and provide the lion's share of CO² processing for NYC. Amazingly, these 7,200 acres account for 69 percent of carbon stored and 83 percent of carbon sequestered in trees in the city²³. Obviously, the natural areas of parks punch high above their weight class, but also require active and effective management²⁴, given the rise of climate change, the continued growth of invasive species, and increased usage of natural and forested areas by the public. A more detailed report on carbon capture and carbon sequestration in New York City is expected from the Natural Areas Conservancy shortly.

Schoolyards to Playgrounds

Since 1996, The Trust for Public Land has worked with the City of New York Department of Education, as well as New York State and other public and private funders, to convert over 200 formerly asphalt schoolyards into community playgrounds and gardens that have green infrastructure elements built in²⁵. These are owned and maintained by the schools, are open as public parks after hours and on weekends, a model that is being replicated in other cities across the country through a variety of public/private partnerships.

KEY TAKEAWAY: Green infrastructure in New York City's open spaces provides shade and greenery, but also millions of dollars in effective stormwater management, air filtration, and reduced energy costs. Trees in open spaces provide incredible carbon storage and sequestration. This is a great start, but expanding applications in parks and natural areas through planting, ongoing care, and creative public access can yield a stronger return on investment.

The Health Benefits of Parks

Over the past decade, the benefits of parks on both physical and mental health has been a field of increasing study. Several studies and research projects are currently underway to capture the impacts of the COVID-19 pandemic.

The connection between parks and physical health is well documented with numerous studies detailing who uses parks, health impacts, and what is needed to increase usage among groups that are under-represented. The Active Living Research network²⁶ is both a source of current and past research, and also a network that helps find funders and audiences for such research. The National Study of Neighborhood

²² Barnard, Anne. "Stir-Crazy New Yorkers Discovered an Idyllic Spot. Will They Trample It?" New York Times, 7/29/20, <https://www.nytimes.com/2020/07/28/nyregion/nyc-parks-coronavirus.html>

²³ Calculating Carbon Storage and Sequestration in New York City's Natural Area Forests, August 2020, The Natural Areas Conservancy.

²⁴ Pregitzer, Clara; Forgione, Helen; King, Kristen; Charlop-Powers, Sarah; and Greenfield, Jennifer. Forest Management Framework for New York City. 2019. <https://naturalareasnyc.org/content/forests/fmf-2019-update-singles.pdf>

²⁵ <https://www.tpl.org/our-work/new-york-city-playgrounds>

²⁶ <https://activelivingresearch.org>

Parks²⁷, which drew on the work, methodology and research documented the Active Living Research network, is the best known and well-documented study. It concluded that modest financial investments in parks will increase physical activity in parks, along with five key findings:

- Proximity to a park does not equal usage
- Local parks encourage healthier lifestyles
- Fewer seniors are using parks
- Walking loops promote fitness
- Young girls are underrepresented, specifically in playground usage

The study had several key recommendations that can yield increases in both park usage as well as physical activity, specifically:

- Installing walking loops, which can increase park usage by 80 percent, doubling the number of seniors using a given park. This is especially important for the 14 percent of New Yorkers who are 65 and older rely on parks and public spaces for social, mental, and physical activity.
- Every play element added to a playground increases its use by 50 percent. (Playgrounds are the number one reason given by respondents in the study for visiting a park, making up 25 percent of all visits.)

Other recent studies point to positive effects for both mental and physical health. Among them:

- The success and documented benefits of spending more time in nature, with doctors now recommending at least 120 minutes per week²⁸. This adds credence to the work of Park RX America, which has been encouraging doctors to prescribe outdoor time to patients suffering health issues as part of an annual physical, as well as monitor the effects on individuals²⁹.
- A 2017 study looked at the relationship between public green spaces and mental health, finding that “both the overall number and total area of public green spaces were significantly associated with greater mental wellbeing, and findings support a dose-response relationship.” The benefits were seen in both active and passive parks. “The study demonstrates that adequate provision of public green space in local neighborhoods and within walking distance is important for positive mental health³⁰.”
- According to a pre-print study performed in late spring 2020 by the New School (Urban Systems Lab), the Nature Conservancy of New York, the New York State Health Foundation and Building Healthy Communities, 55 percent of survey respondents reported that parks and open space ‘extremely important’ for their physical health, with another 25 percent considering parks ‘very important’³¹.
- A study in the medical journal *The Lancet* reported an inverse relationship between mortality rates and exposure to natural vegetation, having followed over 23,000 people in China³².

²⁷ Active Parks, Healthy Cities: Recommendations from the National Study of Neighborhood Parks, City Park Alliance, 2018.

²⁸ Sheikh, Knvul, The New York Times, “How Much Nature in Enough? 120 Minutes a Week, Doctors Say.” 2019.

<https://www.nytimes.com/2019/06/13/health/nature-outdoors-health.html>

²⁹ Park RX America - <https://parkrxamerica.org> and Park RX: <https://www.parkrx.org> (National Park Services/Golden Gate National Parks Conservancy.)

³⁰ Wood, Lisa; Hooper, Paula; Foster, Sarah; Bull, Fiona. Public green spaces and positive mental health – investigating the relationship between access, quantity and types of parks and mental wellbeing. 2017. <https://pubmed.ncbi.nlm.nih.gov/28942343/>

³¹ <https://www.preprints.org/manuscript/202008.0620/v1>

³² [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(18\)30264-X/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(18)30264-X/fulltext)

- Through funding by the American Heart Association and analysis currently in progress by Duke Clinical Research Institute, programs to address social factors in black and brown communities are underway. “Only 20 percent of a person’s [health](#) is shaped by access and quality of health care. However, the neighborhoods where people live—particularly their ZIP codes—could cost them upward of two decades of life. Factors such as education, family income, and access to healthy foods impact life expectancy for vulnerable populations across the United States³³.”
- “Parks and Pandemic,” a Trust for Public Land special report, focused on five areas, including mental health benefits for people during periods of stress overload. Quoting Kathleen Wolf, a researcher at the University of Washington, the sensory experiences of nature “help us to restore that capacity to direct our attention³⁴.”
- According to a pre-print study performed in late spring 2020 by the New School (Urban Systems Lab), the Nature Conservancy of New York, the New York State Health Foundation and Building Healthy Communities, 67 percent of survey respondents reported “they currently consider parks and open space ‘extremely important’ for their mental health, with another 21 percent considering parks ‘very important’ for their mental health³⁵.”

KEY TAKEAWAY: There is significant research supporting the connection between public health and parks. However, as noted in our summary of the National Study of Neighborhood Parks, access to parks does not necessarily mean usage. The ability to visit a park that has amenities and features relevant to a prospective visitor is a key determining factor.

We cover access and total park acreage later in this report, in addition to other potentially limiting factors, including heat.

The Economic Benefits of Parks

The economic benefits of parks are one of the best understood and well-documented. Projected economic impact is also a growing part of new park development or redevelopment of existing parks. This includes the concept of value capture or funding a park by capturing a portion of the increased economic value in surrounding private property. Numerous studies have linked positive economic impact to well-run parks.

However, the economic impact of parks can also be a loaded issue. Parks like the 606 in Chicago, the Beltline in Atlanta, and the High Line in Manhattan, were high-stakes projects driven by a combination of public officials (eager to get work started), and small nonprofit boards (looking for public investment), that had complicated impacts on the surrounding community. Furthermore, they took place in areas already gentrifying and some (but not all) of the decisions made resulted in net loss of low- and moderate-income housing.

As a result, the projects that are being pursued now in cities across the US are increasingly focused on carefully thought-out community engagement strategies. The 11th St bridge project in Washington, DC and Harold Simmons Park in Dallas have created detailed plans that focus on the economic impact while

³³ <https://newsroom.heart.org/news/social-startups-develop-innovative-community-health-solutions>

³⁴ The Trust for Public Land: Parks and Pandemic. P 3.

³⁵ <https://www.preprints.org/manuscript/202008.0620/v1>

ensuring that surrounding communities receive true net benefits. (We cover this topic in greater detail in the Equity section of this report.)

To understand the economic benefits of parks in New York City, we must start by looking at individual parks and comparison cities. In the past 10 years, a growing number of economic studies have been performed for individual parks, as well as city and regional park systems across the United States. The range of factors varies from report to report and can range from direct impact (spending in the parks, people employed), indirect impacts (dollars spent at surrounding businesses, including tourism, and correlated health care costs), as well as non-economic benefits (including health and environmental factors.)

For individual parks, HR&A has taken the lead for economic analyses of proposed parks, like Harold Simmons Park in Dallas, including estimates of benefits for the surrounding neighborhoods and business districts. For existing parks, the best known is the 2015 Appleseed, Inc. study for Central Park: "The Central Park Effect: Assessing the Value of Central Park's Contribution to New York City's Economy,"³⁶ which calculated \$1.045 billion in direct and indirect benefits for New York City in fiscal year 2014.

For park systems, a good example of a city-wide park system analysis is when the Chicago Parks District worked with several consulting firms to create "The Power of Parks: An Assessment of Chicago Parks' Economic Impact"³⁷ in 2014. Key findings saw that Chicago's parks added 1.5 percent to property values to homes within two blocks of a park, for a total of \$900 M in total value. Additionally, the study found that:

- Small parks make up 37 percent of the total property value impact
- 8 percent of total tourist spending is being driven by Chicago Parks, equal to \$1.4 B annually
- 43 percent of all residential properties in Chicago have a higher value due to parks

Analyzing an entire city (or regional) park system is challenging and The Trust for Public Land, through their Conservation Economics team, probably has the best model and the most experience. Using the recent report on Toledo Metroparks³⁸ (a regional park district in metropolitan Toledo Ohio), they evaluated the following:

- Increase in the value of homes near parks and trails (\$40.8 M)
 - Increase in property tax value as a result (\$1.13 M)
- Amount generated in direct visitor spending (\$59.5 M)
- Size of the local recreation economy (\$18 M in sales)
- Residents benefit for recreational use in the parks system (\$27.5 M)
- Physical activity in parks and reduction in health care costs
- Stormwater filtration benefits by parks/trails (\$5.5 M)
 - Resulting reduction in pollution control costs (\$1.46 M)

For a broader view of the economic impact of public parks and recreation agencies across the United States, the National Recreation and Parks Association commissioned the Center for Regional Analysis at George Mason University for the Economic Impact of Local Parks Report³⁹. They found that public parks and recreation agencies generated \$166 billion in economic activity and supported more than 1.1 million jobs

³⁶ http://assets.centralparknyc.org/pdfs/about/The_Central_Park_Effect.pdf

³⁷ https://www.nrpa.org/uploadedFiles/nrpaorg/Professional_Development/Innovation_Labs/Power-of-Parks-Study-Chicago-Park-District.pdf

³⁸ <https://www.tpl.org/economic-benefits-metroparks-toledo>

³⁹ Economic Impact of Local Parks Report: <https://www.nrpa.org/siteassets/research/economic-impact-study-summary-2020.pdf>

in 2017, including more than 380,000 full-time and part-time parks employees. For New York State, this was \$9.167 billion in economic activity, 56,479 jobs and \$3.21 billion in labor income.

While we have reports showing the direct and indirect economic impact that individual parks, such as Central Park, have had, we do not have a city-wide analysis of the NYC park system and its impact. A look at the economic impact report for the Los Angeles park system⁴⁰ is a good indicator of what we might find for New York, given similar park acreage:

- Increase in the value of homes near parks and trails: \$2.29 billion annually
 - Increase in property tax value as a result: \$27.2 million annually
- Amount generated in direct visitor spending: \$415 million annually
- Residents benefit for recreational use in the parks system: \$334 million annually
- Physical activity in parks and reduction in health care costs: \$151 million annually
- Stormwater filtration benefits by parks/trails: \$8.03 million annually
 - Resulting reduction in pollution control costs: \$1.58 million annually

In order to state unequivocally that the New York City park system is a net-positive in terms of economic impact, we would recommend a detailed economic analysis. Based on Central Park reports, the Los Angeles report and the New York state data from the National Recreation and Park Association analysis, indications seem to point in that direction.

KEY TAKEAWAY: Parks have the potential to create significant positive impact. More often, new park projects contemplate not just economic enhancements at large, but strategies that ensure those gains are equally shared by the surrounding communities.

Parks as an Integral Part of the City Fabric, Not Separate

As we have seen above, the benefits of green infrastructure extend far beyond the boundaries of our parks. This interweaving invites residents and visitors to play, exercise, contemplate, and gather in both pandemic times and normal times alike.

Parks too, reflect the city that surrounds and “invades” them on a daily basis. In recent years we have seen parks used as testing grounds for attractions, such as outdoor movies, concerts, Shakespeare, green / farmers’ markets, food festivals, marathons, five-borough bike rides, and protests—all exercising the long-cherished right of the freedom to assemble.

Many of these experiments are then taken back to streets and neighborhoods. The decision⁴¹ by the de Blasio administration to permanently permit the thousands of existing “street eateries” and 86 open streets for dining, biking, and play is a big validation that more park space is needed and welcome, and that times of crisis can result in long-standing ideas being piloted and taking hold.

Just like streets, sanitation, or transit, parks need care and investment. Unlike streets, sanitation and transit, the need for continued investment isn’t as clear to local and regional leaders. Unfortunately, we’ve seen repeatedly what happens when disinvestment takes place.

⁴⁰ <https://www.tpl.org/econbenefits-losangeles>

⁴¹ <https://nyc.streetsblog.org/2020/09/25/permanent-and-year-round-mayors-restaurant-plan-is-a-long-overdue-shift-of-public-space-from-cars-to-people/>

KEY TAKEAWAY: Parks and open spaces are not safeguarded from, and more often reflect the ebbs and flows of, the economy and prevailing leadership. As seen in the current crisis, the expectation that these spaces perform regardless of circumstance highlights the need for more resilient networks.

2. Equity

Equitable Access To Parks

There are a growing number of research projects and papers that chronicle, in great detail, who has access to parks and who doesn't, both in New York and other cities across the United States. Most studies draw on the use of historic data revealed in the last few decades, namely the overlay of redlined communities to those today who have a lack of parks, excessive heat or other environmental issues. The connection between the two is readily apparent and has triggered discussion and action especially in the wake of the ongoing pandemic, the rekindled protests following the killings of Black Americans, and the ongoing economic recession.

Lack of adequately sized parks is specifically impacting low-income neighborhoods where essential workers share smaller spaces, continue to go to their jobs, and juggle family needs in more densely packed spaces. We'll provide additional examples of the uneven access and systemic challenges later in the green infrastructure and health sections.

A growing number of cities are tackling these challenges head on, at varying levels of impact. Again, New York City, through a variety of programs, has been ahead of the curve in many aspects. The Partnerships for Parks program, the Community Parks Initiative, Parks Without Borders and the work of many nonprofits and community groups have all helped. New York has nearly 30,000 acres of parks and open spaces and according to the annual ParkScore Index, 99 percent of New York residents have a park within a ten-minute walk of their home⁴².

However, quality of individual parks varies widely—and as noted earlier, access does not necessarily mean usage. NYC Parks has worked over the past seven years to identify specific parks and playgrounds that have received the lowest level of investment, and sought to improve those facilities through its Community Parks Initiative, which is a good step in the right direction. But many smaller neighborhood parks have only playgrounds with limited amenities and were subject to closure as the pandemic deepened this past spring.

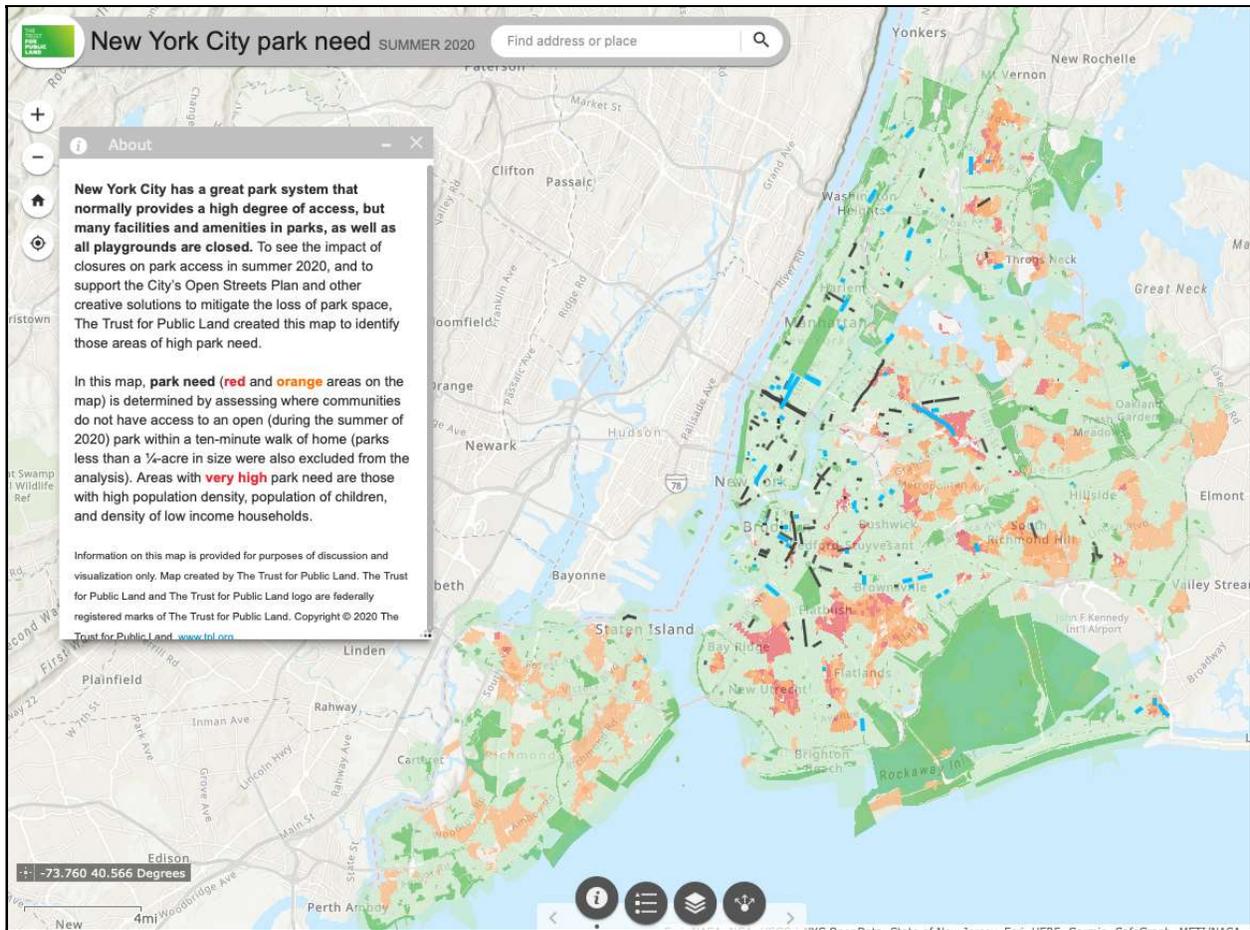
As a result, many denser, more diverse neighborhoods saw greatly reduced access to parks. The Trust for Public Land performed specific analysis to determine the temporary loss of parks across NYC given closures of playgrounds, school yards and community gardens. In general, 10-minute walk access went from 99 percent to 96 percent. Figure 2, below, details the gaps at the height of closures in early summer.

⁴² <https://www.tpl.org/city/new-york-new-york>

KEY TAKEAWAY: Historical inequities in park access have been compounded by the COVID-19 pandemic, further limiting access to open space when it is more critically needed.

KEY TAKEAWAY: The stewardship and maintenance of parks and public spaces is as critical as the construction of new parks in addressing issues of access and equity.

Figure 2: NYC Park Need, Summer 2020, accounting for temporary closures.

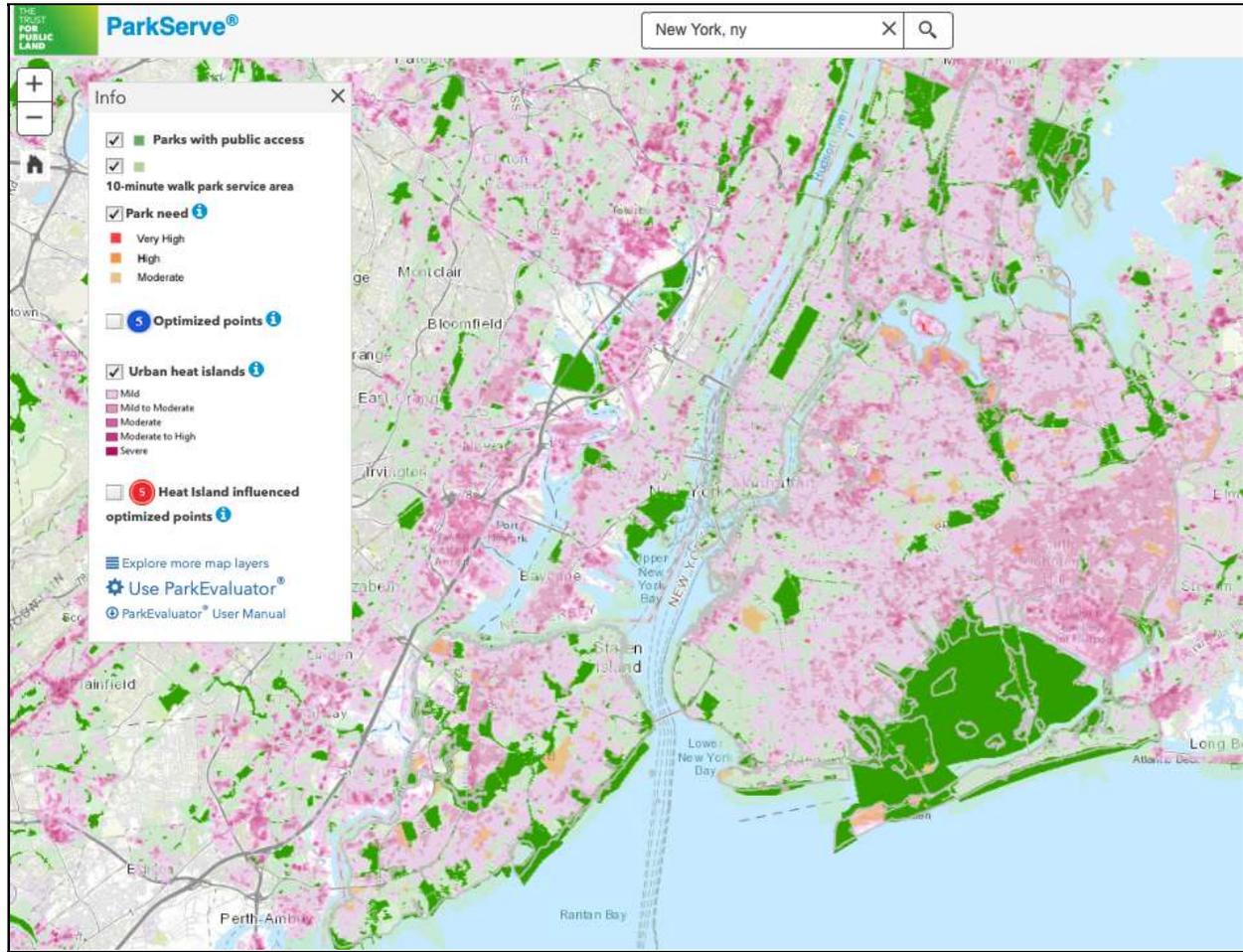


Compared to the 100 largest U. S. cities analyzed for ParkScore, New York is still well above the median score of 72 percent of the population within a 10-minute walk to a park. A more comprehensive look at the United States and park access was unveiled with ParkServe in 2018. ParkServe specifically maps parks and access for nearly 14,000 urbanized areas⁴³, identifying over 130,000 parks as well as noting that one-third of the mapped population does not have a 10-minute walk to a park.

Furthermore, ParkScore and ParkServe provide additional information on who is served within a ten-minute walk to a given park by ethnicity, age and income. Urban heat islands across New York City have also been mapped with a color coding from light pink to red to denote severity as shown in Figure 3, below.

⁴³ ParkScore and ParkServe share the same mapping tools and same information for demographics as well as urban heat islands. ParkServe effectively maps 80 percent of the U. S. population.

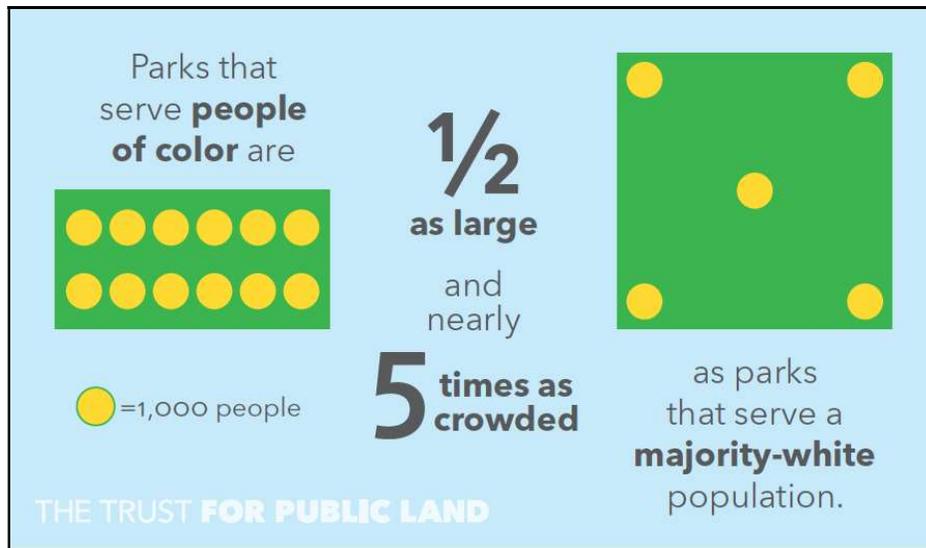
Figure 3: Urban Heat Islands in New York City according to ParkServe.



The ability to map urban heat islands and collating that data to the ParkServe database of mapped parks has led to the Summer 2020 release of “The Heat is On: A Trust for Public Land Special Report.” Three specific findings are of primary importance for this review.

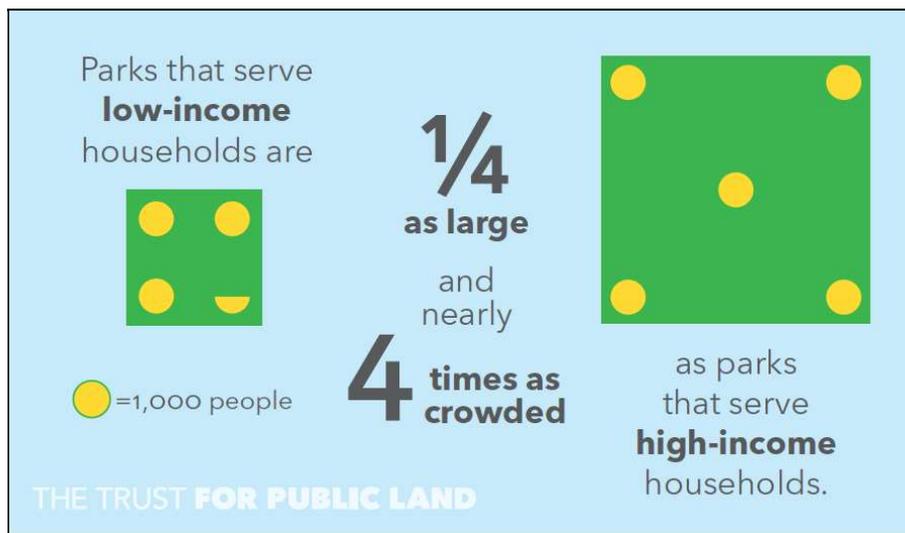
- First, the analysis found that parks that serve people of color are half as large and nearly five times as crowded as parks that serve a majority-white population, as illustrated in Figure 4 below. The specific numbers are that 12,000 people of color have access to 45 acres on average, versus 5,000 people in majority-white neighborhoods with access to 87 acres, on average across all 14,000 urbanized areas mapped in ParkServe.

Figure 4: Park Service Levels for People of Color versus Majority-white populations.



- Second, when looking at income levels, parks serving majority low-income households are, on average, four times smaller and four times more crowded than parks that serve majority high-income households, as illustrated in Figure 5, below.

Figure 5: Parks serving low-income households versus high-income households.



- Third, areas in communities within a 10-minute walk to a park are as much as 6 degrees cooler than areas beyond that range⁴⁴. Obviously, smaller parks serving bigger populations in dense communities aren't as effective in reducing heat in surrounding communities, as shown in urban heat island data.

⁴⁴ The Trust for Public Land. The Heat is On. Page 2 <https://www.tpl.org/the-heat-is-on-2020>.

Heat is a critical issue in a warming world, and one that is gaining more attention in the age of climate change. Recent research shows that heat has contributed to 5,600 deaths annually, on average, from 1997 to 2006⁴⁵. There are a growing number of studies on the effects of heat and, as expected, heat affects poorer, denser neighborhoods and disproportionately affects people with existing chronic health conditions as well as the elderly.⁴⁶ Furthermore, residents in underserved communities must commute to parks in other neighborhoods⁴⁷.

The Nature Conservancy and New York City have analyzed neighborhoods across boroughs in the Heat Vulnerability Index (HVI)⁴⁸ and report that many neighborhoods in the Bronx, Queens and Brooklyn score 4 or 5, putting them in the most vulnerable categories. This reinforces the need for cooling solutions in parks and public spaces where children and seniors are most likely to use those spaces for play and social interaction, respectively.

KEY TAKEAWAY: The disproportionate effect of heat on underserved, low-income neighborhoods furthers the need for canopied, proximal green space.

Earlier we mentioned the social importance of parks, especially for children and seniors, and the range of amenities and activities that make parks used more frequently by those populations. Key to that is programming, ranging from classes to after-school programs and swimming lessons, as well as community events and gatherings. In-person programming was greatly curtailed during the spring peak of the pandemic and what programming was available was primarily virtual, which limited access to vulnerable populations. While programming is slowly being reintroduced for small groups, it will be important to fund a wide range of programming in parks. As most recreation and senior centers are operated by city staff, and outdoor programming and events are organized by a combination of nonprofit partners and city staff, this will be an important area of continued investment.

A long-standing issue in park equity is whether people of color feel welcome in parks that are in majority white communities. A growing number of researchers have been looking at the history of parks, their design, and their policies, including Carolyn Finney in "Black Faces, White Spaces"⁴⁹. Finney presents a long look at the history of parks in the United States, finding systemic approaches to actively and passively excluding people of color, including segregation of parks in concert with redlining in cities across the United States.

For New York specifically, the response to parks becoming destinations for illicit activity or for homeless populations, beginning in the 1970s, was installing fencing and gates so that parks could close after dark. Furthermore, the practice of discouraging use by "undesired" populations, was first introduced by business improvement districts (BIDs) operating city parks and plazas, targeting homeless populations but also people of color in the late 1980s and early 1990s. Recent efforts to make parks more welcoming through programs like Parks without Borders in New York have made some progress, as have efforts led by Bryant Park Corporation and others, to provide a range of programming and activities that encourage usage by a

⁴⁵ The Trust for Public Land. The Heat is On. Page 4.

⁴⁶ Jeremy S. Hoffman, Vivek Shandas and Nicholas Pendleton. The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas. <https://www.mdpi.com/2225-1154/8/1/12/htm>, January 2020

⁴⁷ Plumer, Brad and Popovich, Nadja: How Decades of Racist Housing Policy Left Neighborhoods Sweltering. 8/24/20 <https://www.nytimes.com/interactive/2020/08/24/climate/racism-redlining-cities-global-warming.html>

⁴⁸ <http://a816-dohbesp.nyc.gov/IndicatorPublic/VisualizationData.aspx?id=2191,719b87,107,Summarize>

⁴⁹ <https://uncpress.org/book/9781469614489/black-faces-white-spaces/>

wide variety of people. Still, the challenges and the debates remain, as memories and beliefs about “appropriate behavior” are strong in many people’s minds⁵⁰.

Continuing coverage of police killings and assaults of protesters in public spaces including parks, and specific altercations in Central Park, as well as widespread use of parks as protest sites for the resurgent Black Lives Matter movement have raised once again whether all public spaces are truly open and welcome to all. Researchers such as Setha Low⁵¹ have been examining the design and operation of public as well as privately-owned public spaces (POPS), and how people can be unintentionally or intentionally excluded in ways both subtle or overt.

KEY TAKEAWAY: Overall, the challenge in ensuring park access for all is to ensure that parks are open and accessible, maintained consistently across all five boroughs, and are designed with a variety of ages, ethnic backgrounds and physical abilities in mind. Furthermore, it is incumbent upon open space operators to remember that there is no such thing as a neutral public space; all public space is inherently political.

We’ll cover more about ways in which cities, including New York, are working to tackle equity in design, programming, maintenance and operations overall. Given the current challenges brought to the forefront due to both the pandemic and recession, this will be a significant challenge.

Equity in Design and Capital Planning

There is a great deal of research and many demonstration projects in this category; and recently published, as well as forthcoming research, provides a number of additional examples, including the City Parks Alliance, The Urban Institute and the High Line Network. Many “2.0” versions of new parks are working to tackle equity in all aspects going forward⁵², often located outside New York City. These parks—planned, under construction, or opening—draw on the lessons learned from the first generation of new parks from earlier in the 2000s: The High Line in Manhattan, the 606 in Chicago, and the Beltline in Atlanta.

Both the 606 in Chicago and the Atlanta Beltline have been criticized for driving gentrification and displacement⁵³. The 606 did not have housing as a component of its plan. The Trust for Public Land and the City of Chicago, largely through City Council action, have been belatedly working to acquire properties near the park to retroactively try and address the growing needs as housing prices continue to rise, somewhat unevenly, along the corridor.

In Atlanta, 5,600 units of affordable housing were agreed to by Atlanta Beltline, Inc. and the City of Atlanta, and to date approximately 38 percent of that goal has been reached. Many advocates, including Beltline originator Ryan Gravel⁵⁴, state that progress has been too slow, especially with some low-income housing disappearing in 2016-2017. Specifically, a number of affordable units had only a ten-year guarantee per agreements with property owners, Atlanta Beltline, Inc. and the City of Atlanta.

⁵⁰ <https://www.washingtonpost.com/outlook/2018/10/25/we-cant-solve-homelessness-until-we-understand-how-weve-made-it-worse/>

⁵¹ <https://enviropsych.org/faculty/low/>

⁵² Personal communication with Ana Traverso-Krejcarek, High Line Network, and Grey Elam, Institute for Urban Parks, Central Park Conservancy, 8/28/20.

⁵³ Rigolon, A and Nemeth, J. “We’re not in the business of housing:” Environmental gentrification and the non-profitization of green infrastructure projects, 2018, <https://www.sciencedirect.com/science/article/abs/pii/S0264275117314749>

⁵⁴ <https://saportareport.com/ryan-gravel-nathaniel-smith-resign-beltline-partnership-board-equity-concerns/>

We should note that small-business owners are also subject to the same challenges and issues facing renters in many cities. With mandatory closures as well as reduced indoor capacity, many stores have seen sharp drops in revenue and negotiated delays in rent payments. There are a few exceptions to this, one such example being in Bedford-Stuyvesant in Brooklyn, where a large number of small-business owners own their buildings or store fronts, according to the Bed-Stuy Gateway BID⁵⁵.

Looking at other cities, the leader in equity building efforts is the 11th Street Bridge Project, led by the nonprofit Building Bridges Across the River (BBAR) in Washington D.C.⁵⁶ In many ways, they are functioning more as a community development corporation, with efforts ranging from housing to workforce development to creating jobs and just about everything in between. As fundraising for park construction continues, BBAR has already set up a land trust to ensure local ownership of property and housing, including storefront businesses. They are also actively creating and managing low and moderate-income housing.

KEY TAKEAWAY: Consideration and planning prior to park design are needed to mitigate the negative impacts of capital work on housing markets, and the displacement of existing communities.

In Philadelphia, a combination of public and private funding (including a city-wide soda tax) is funding nearly \$500 million in improvements in 72 neighborhood parks, libraries and recreation centers⁵⁷. Project selection was based on past investment, community need, and consideration for health, income, ethnicity, and age⁵⁸. Philadelphia is contracting with a variety of nonprofit, community, and workforce development organizations to manage and deliver these projects⁵⁹ versus going through the standard public design, procurement, and construction process. Roughly a dozen projects have been completed in the first three years of what will be a decade-long timeline.

Through voter approved tax increases as well as pending bonds up for consideration by voters in November 2020, San Francisco Recreation and Parks, together with nonprofit partners San Francisco Parks Alliance and The Trust for Public Land, has worked to reinvest in underfunded neighborhood parks and revitalize heavily used parks. San Francisco spends the most per resident of any US city and has enjoyed continued voter support for bonds and sales tax revenue over the past 12 years for large numbers of park improvements and expanded programming⁶⁰.

KEY TAKEAWAY: Rather than the standard public design approval and funding process utilized in NYC, many cities are exploring alternate approaches to address issues of equity and economic benefits.

KEY TAKEAWAY: Effective community engagement is essential in these efforts and input and design should reflect the desires of the community.

Similarly, in Minneapolis, criticism from communities of color that their neighborhood parks had been chronically underfunded for decades led the Minneapolis Park and Recreation Board to develop a plan to

⁵⁵ Interview with prior Bed-Stuy Gateway BID executive director, November 2015

⁵⁶ <https://bbardc.org>

⁵⁷ <https://www.phila.gov/programs/rebuild/project-sites/>

⁵⁸ <https://phl.maps.arcgis.com/apps/MapSeries/index.html?appid=83859ea676884d62ab22071f3d55f91a>

⁵⁹ <https://www.phila.gov/programs/rebuild/our-team/nonprofit-partners/>

⁶⁰ <https://sfrecpark.org/468/Park-Improvements>

prioritizing capital improvements in those parks. Funded through a partnership with the City of Minneapolis, the Neighborhood Park Plan⁶¹ has committed \$11 million a year for 20 years to revitalize 160 neighborhood parks through community driven processes.

In many ways, New York has also been ahead of the curve in looking at park design or redesign. Many parks across New York are fenced in⁶² and locked after certain hours, due in part to the defensible space movement that rose to popularity in the early 1970s⁶³. Through the leadership of Parks Commissioner Mitchell Silver, NYC Parks launched Parks Without Borders⁶⁴, an initiative to make parks more open and accessible. Parks Without Borders came on the heels of the Community Parks Initiative, prioritizing the improvement of parks in underserved neighborhoods.

The Community Parks Initiative, driven in part by public pressure and changes in political administrations, resulted in the investment of \$318 million in 67 parks in neighborhoods across the city. Analysis performed by NYC Parks determined which neighborhood parks had the least amount invested in the prior 20 years, and drove a series of improvements, with community engagement, beginning in 2014. As of January 2020, 47 of the 67 parks have been renovated and the American Planning Association awarded the city the 2020 National Planning Excellence Award for Advancing Diversity and Social Change in Honor of Paul Davidoff⁶⁵.

Separately, the Parks Without Borders initiative, which selected parks through a city-wide public nominations process in 2015-16, named eight showcase parks to receive \$40 million in improvements. The process of community engagement, design, and construction is still underway, with two projects—Seward Park and Jackie Robinson Park—now completed. Both NYC programs go through the normal city capital project for city projects, which can take from 2.5 to 4 years, on average.

KEY TAKEAWAY: Many cities, including New York City, have spearheaded initiatives prioritizing chronically underfunded neighborhood parks in capital planning efforts. This has led to increased community engagement and real investment in many neighborhoods.

Equity in Programming, Maintenance and Operations

Apart from capital investment in parks in New York and other cities, the broader challenge is continued funding for ongoing programming, maintenance, and operations. Despite increased usage, many cities, including New York, have seen steep cuts in budget with the bulk of the cuts seen in reductions of the seasonal daily service workforce. For example, NYC Parks has seen a 1,700 person reduction to its seasonal workforce, and more cuts are expected. But the challenge extends to other departments; NYCHA has thousands of playgrounds on its properties, all managed by staff, and is expecting deeper budget cuts in the coming months.

These cuts affect the smaller neighborhood parks and playgrounds disproportionately due to the way NYC Parks (and most city park agencies) perform routine maintenance, also commonly called daily service. While larger parks have facilities housing dedicated staff (including a combination of NYC parks and park conservancy staff) most smaller parks are maintained by roving crews.

⁶¹ https://www.minneapolisparcs.org/about_us/budget_financial/20-year_neighborhood_park_plan/

⁶² All New York City public playgrounds are fenced and have gates by design and New York City Park Playground rules prohibit the entry of adults into playgrounds unless accompanied by children.

⁶³ https://en.wikipedia.org/wiki/Defensible_space_theory

⁶⁴ <https://www.nycgovparcs.org/planning-and-building/planning/parks-without-borders/how-it-works>

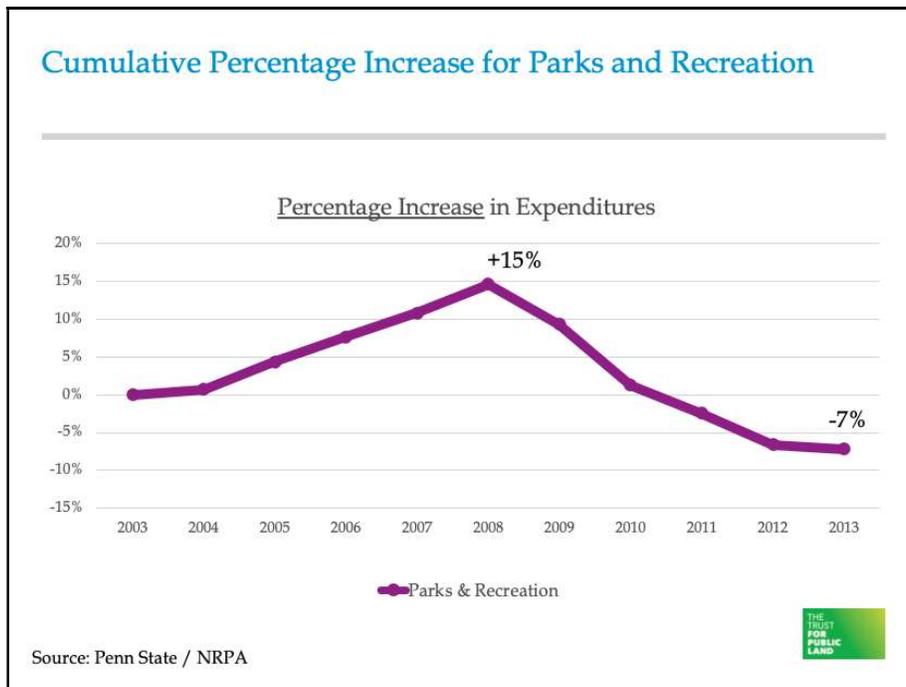
⁶⁵ <https://www.planning.org/awards/2020/excellence/community-parks-initiative/>

Typically, roving crews include a supervisor driving a van with multiple park staff, often hired seasonally, as well as workforce development program staff. The supervisor drops staff off at a group of parks in succession, where they pick-up, clean and organize; the supervisor then returns to pick up staff, completing the circuit. The reassembled crew heads to the next grouping of parks and the process repeats. When staffing is reduced out of season (or when seasonal hiring is reduced), there are fewer staff to clean the same number of parks, so the visit frequency decreases to every third or fourth day, versus daily⁶⁶.

We should note that larger parks experience less frequent service as well, but staffing levels, especially those where NYC parks and conservancy staff are working together, tend to be higher given the generally higher visitation levels. Still, conservancies depend on both donations as well as earned income from concessions to fund ongoing maintenance and operations⁶⁷.

The full scale and impact of cuts to operation and maintenance is just starting to be felt. Most larger US cities are reporting annual cuts of 8 to 15 percent for the 2021 fiscal year. For contrast, analysis of public park agency spending by Penn State University and the National Recreation and Parks Association saw net decreases of 22 percent from 2008 to 2013, as shown in Figure 6, below.

Figure 6: Budget increase/decrease for Parks & Recreation, 2003-2013

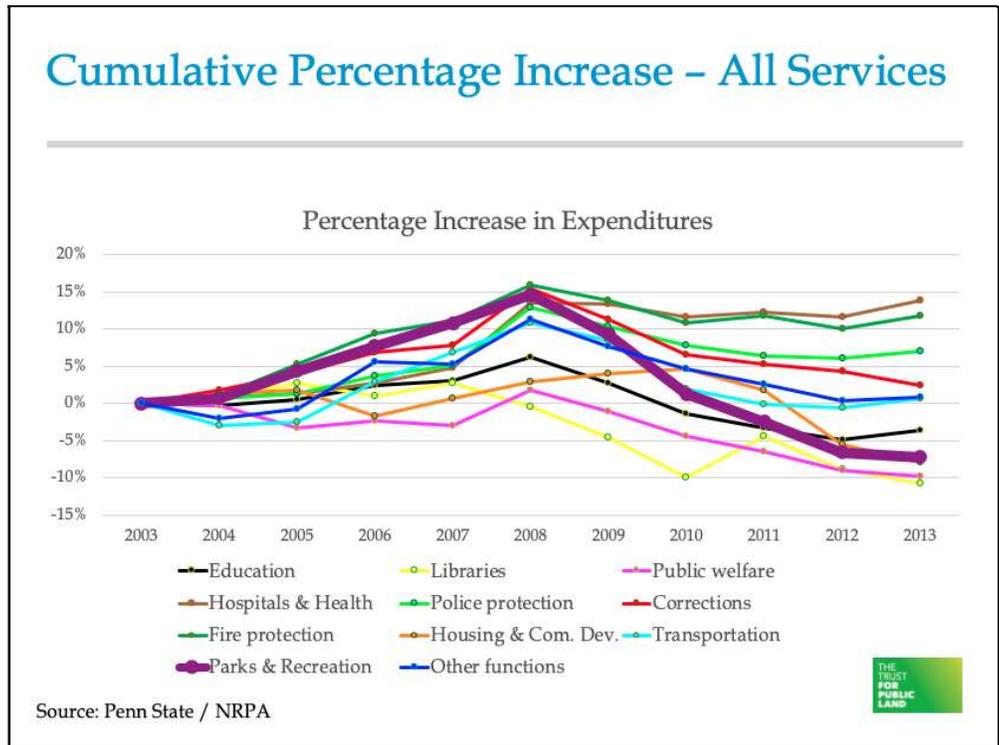


Public parks and recreation departments, along with Libraries and Public Health (called welfare in Figure 7 below) usually see the steepest cuts, as shown in Figure 7 below.

⁶⁶ Information from interviews by Charlie McCabe, Lucy Robson and Tupper Thomas of New Yorkers for Parks with NYC Parks operations staff, July 2016. Additional information on pocket park servicing from Chicago Parks District presentation on economic value, September, 2017, NRPA Conference, New Orleans, LA.

⁶⁷ Earned income is down in parks due to restrictions, largely local health directives, on food service establishments. This is slowly changing in New York State, with the recent announcement of reopening indoor dining at 25 percent of capacity.

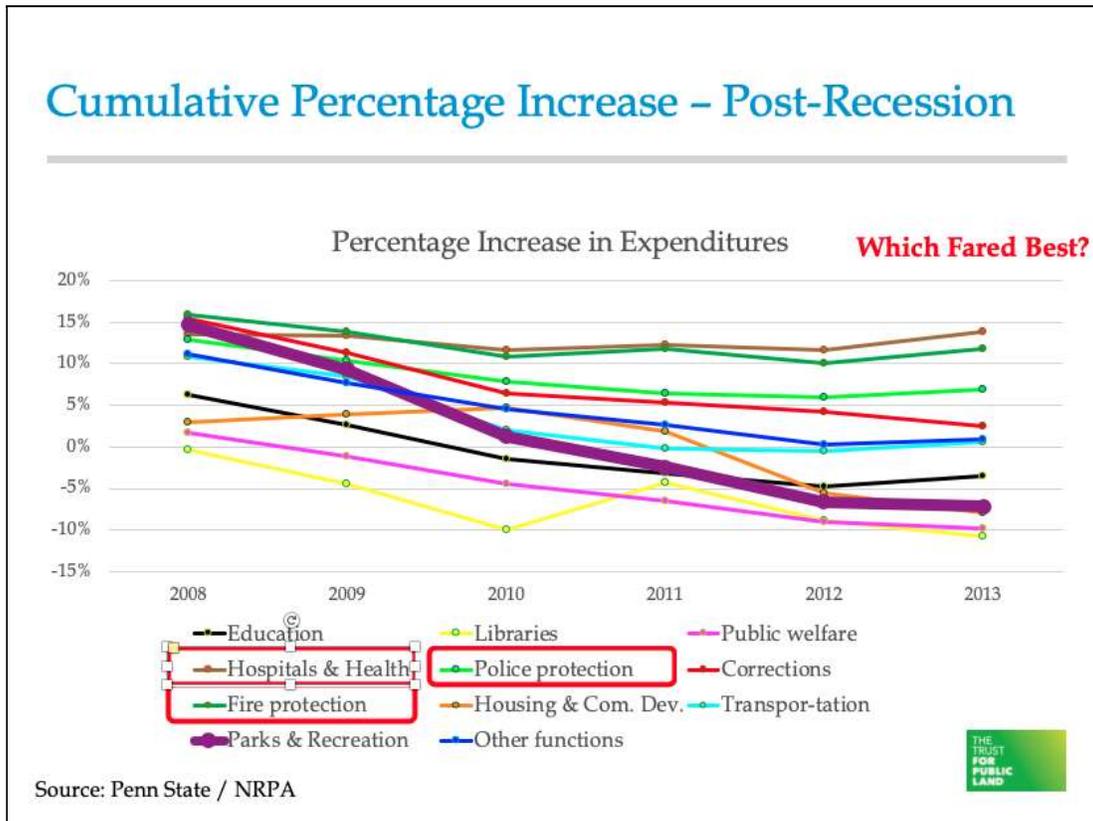
Figure 7: Public services budgets 2003-2013



KEY TAKEAWAY: Taking lessons from the 2008 Great Recession and its aftermath, it is likely that parks and recreation departments will be the first to be cut and the last to recover in this new recession. Based on both the reporting by Penn State/NRPA and TPL for City Park Facts/Park Score, much of the decrease is in operating, maintenance, and programming, affecting smaller parks disproportionately.

Local public municipalities have more short-term control over annual budgets, and what to cut versus what to keep follows a consistent priority: fund police, fire, EMS, and hospitals first. This is due in part to consistently higher perceived value by public officials for public safety. For nearly 20 years, public safety has been growing at a rate in a majority of cities to consume most of the general fund. Again, the findings of the Penn State/NRPA study bear this out, as shown in Figure 8 below.

Figure 8: Recovery in public department expenditures, 2003-2013.



In summary, while a number of cities have made strides in investing in more equitable ways in the period since the great recession, the tremendous uncertainty of city and state income, as well as the very real question of additional federal assistance via stimulus or recovery acts, will determine if there’s even a temporary recovery in local spending.

Given that we are still in the midst of the pandemic, while we hope for additional federal assistance, based on our experience with 2009-2010 Stimulus, city parks systems will be grappling with greatly reduced budgets. This will be especially true for programming, operations, and maintenance, coupled with greatly increased park system usage and likely reductions in indoor programming for the foreseeable future.

3. Systems Change and Funding Models

Funding for parks and recreation, even in New York City, seen as the birthplace of the park conservancy, is still largely public; 88 percent of total park spending comes from public funds according to data reported in the 2020 ParkScore Index⁶⁸. While there are a number of highly visible conservancies and foundations,

⁶⁸ Data collected from most recently completed fiscal year from New York City Department of Parks & Recreation by the Trust for Public Land, Fall, 2019. <https://www.tpl.org/city/new-york-new-york>

there is also a large and interconnected network of friends groups and coalitions that steward sites from streetscapes and community gardens to neighborhood parks. These coalitions can definitely help, especially with additional assistance for organizing, sharing lessons learned and best practices in more systematic ways. But, at best, efforts by nonprofit parks conservancies and friends groups cannot replace the loss in public funding, especially over a period of several years, which seems likely given what we learned from the Great Recession.

Key Takeaway: 88 percent of New York City park funding is public funds, with the remaining 12 percent provided by nonprofits.

Generally, the lion's share of funding for city parks systems comes from public sources. Here are the key findings for New York City, based on the 2020 ParkScore Index, with comparisons to selected US cities:

- NYC spends \$198 per resident, 9th overall in the list of ParkScore cities.
- For public only spending, Seattle is #1 at \$320 per resident, with Minneapolis and Arlington VA tied for second at \$291 per resident. New York City is #9, with \$198 in public spending per resident.
- In overall spending, the top city in the US is San Francisco at \$399 per resident⁶⁹. These amounts include all sources of funding, public and private. The latter is largely via donations to park nonprofit organizations.
- In overall spending, New York City spent \$232 per resident in 2020, ranking 7th overall per 2020 ParkScore. (The median for all 100 ParkScore cities is \$89 per resident).
- Overall, TPL reported in 2020 that parks nonprofits in NYC contributed 12 percent of the total spending for the most recently completed fiscal year, a total of \$232.43 million.
- It is important to note that overall nonprofit spending is much, much higher in Manhattan and to a lesser extent, Brooklyn, than in Queens, the Bronx and Staten Island⁷⁰.
- The highest percentage of private spending was found in St. Louis at 43 percent, NYC was 13th highest, behind Austin and ahead of Miami⁷¹.

How does New York City compare to other large US cities in terms of percentage of budget dedicated to parks? Based on data collected from budget documents on city websites, we've compared park department spending, overall city budget, and the percentage of the city budget that goes to parks. NYC's park budget is 0.6 percent of the total city budget for FY2021. Shown in Figure 9 below, these are fiscal year 2020 numbers, unless otherwise noted.

⁶⁹ Overall spending includes both public and private (non-profit) dollars and includes capital spending. TPL averages the last three years of spending to ensure that highs and lows, largely caused by extreme YOY changes in capital spending, don't skew the results.

⁷⁰ Building the Future of New York - Parks and Open Space, p 6.

⁷¹ www.tpl.org/parkscore - additional information collected by TPL's Center for City Park Excellence.

Figure 9: Parks budgets in selected U. S. cities.

City:	Park Budget:	City Budget:	Parks Dept %:
San Francisco	\$163.6 million	\$5.1 billion	3.2%
Los Angeles	\$268.56 million	\$10.71 billion	7.5%
Philadelphia	\$65.58 million	\$4.9 billion	1.34%
Seattle	\$261.9 million	\$5.9 billion	4.44%
Houston	\$85.3 million	\$5.1 billion	1.7%
Portland, Oregon	\$254.3 million	\$5.6 billion	4.5%
Minneapolis	\$131.9 million	\$1.89 billion	8.5%
New York City	\$509 million	\$88.2 billion	0.6%

Funding for New York parks comes from a similar set of public funding mechanisms as in many other cities across the United States. This was well documented by the Urban Institute in a 2019 report for the City Parks Alliance, and appears in **Appendix A** at the end of this report. That said, dedicated sources of funds, such as property taxes, sales taxes, or other forms of millage, are not present in New York City.

Some city and metropolitan park systems have dedicated sources of funding. These provide a majority, but not all of the funding needed to operate a park and recreation system. The most well-known funding systems include:

Park Districts: A specific governmental entity created through state legislation and specifically enacted for specific geographic cities, towns, and counties, or a combination of the three. Park districts are most common in Minnesota, Michigan, Ohio, Illinois, Washington state, and Georgia. Park districts are governed by an appointed or elected board of directors, the specific make-up varies according to the enabling legislation and municipal government. Boards can be appointed by a mayor (Chicago), publicly elected by voters (Minneapolis), or can be made up of the mayor and city council (Seattle). These entities can collect sales tax or property taxes to fund capital construction, operation, and maintenance, as well as programming.

Parkland Dedication Ordinance or Park Impact Fees: This is a flat fee levied on new housing or hotel units that is paid into a city fund by a housing or hotel developer. The funds must be spent on park land acquisition or capital improvements for new parks within a specific radius of the playing housing or hotel developer. Parkland dedication funds can only be spent on capital projects, including land acquisition, park design and construction, as well capital improvements in existing parks. Over one-third of the 100 largest US cities have parkland dedication ordinances; Dallas was a recent addition in the 100 largest cities.

Dedicated Property Tax (Mill): A variation of dedicated revenue is a dedicated property tax, often referred to as a "mill." Dedicated property taxes are often associated with a parks district or parks authority, but not always. Generally, these dedicated amounts are approved by voters and use of funds is specified by local ordinance. (The definition of a mill is \$1 per \$1,000 of property valuation, so one-half of a mill is 50 cents per \$1,000 of property valuation)

Dedicated Sales Tax: A percentage of sales tax collected by local city/county that is dedicated for usage by a public parks and recreation agency. Sales tax propositions are usually placed on the ballot by mayor/city council and must be approved by a majority of voters. They can be used for capital, operations and maintenance and programming. Denver passed such a tax in November 2018, but generally, these dedicated sales taxes for parks are very rare.

Hotel Occupancy Tax (HOT): Often called “hotel-motel” taxes. A small but growing number of cities are allocating a portion of hotel room taxes for public capital projects that benefit tourism, including some projects in parks like historic preservation work. Hotel occupancy tax usage regulations are approved by state legislatures and are subject to conditions and regulations placed on them.

KEY TAKEAWAY: Dedicated sources of public funds, such as property taxes, sales taxes, impact fees, and other forms of occupancy taxes, are not being utilized in NYC for direct funding of parks.

Players in New York City Parks and Public Spaces

Players in both systems change and funding model categories include the public sector (primarily NYC government), nonprofit groups, and a wide array of volunteer groups.

In parks, the city is the dominant player, funding much of the capital, programming, maintenance, and operations in city open spaces, with hundreds of nonprofits contributing millions of private dollars, volunteer energy, and passionate advocacy for public spaces.

In fact, the agreements between the City of New York and individual conservancies and “friends of” groups are designed to, by and large, retain the city’s control of public assets. Key to every agreement is the “terminate at will” clause allowing NYC Parks to cancel any agreement, including the long-standing agreement with the Central Park Conservancy, at any time. Conservancies, friends groups and even informal gatherings of neighbors know that the city has the final say as to what can take place in city open spaces. This is true in nearly every city across the United States. As Hermann Park Conservancy’s Doreen Stoller puts it, “the City of Houston has allowed Hermann Park Conservancy to perform many duties on its behalf. But we can’t lose sight of the fact that our work is ‘on its behalf’⁷².”

In New York as well as other US cities, funding for capital and other projects can come from a variety of other sources and other public departments, but mostly it is the public sector. For example, the Departments of Transportation, Sanitation, Environmental Protection, and Economic Development can contribute funds to public space improvements while addressing other infrastructure needs, such as plazas, bike lanes, Green Streets⁷³, street trees, and other green infrastructure. Coordination of spending and implementation of features between public agencies varies widely.

A huge challenge remains for the ongoing maintenance and operation of new or overhauled facilities, including parks, but also Green Streets improvements⁷⁴. This is primarily done with seasonal or workforce

⁷² Harnik, P; Martin A. Public Spaces/Private Money, p. 36.

⁷³ NYC Green streets program: <https://www.nycgovparks.org/greening/green-infrastructure>

⁷⁴ Green streets, primarily focused on green infrastructure to address surface water runoff are primarily being designed and constructed in Northern and Eastern Brooklyn, Queens and the Bronx. Current maps showing completed (green) under construction (yellow) and designed (blue) is here: <http://www.arcgis.com/home/webmap/viewer.html?webmap=a3763a30d4ae459199dd01d4521d9939&extent=-74.3899,40.497,-73.3757,40.9523>

development program staff, who work a portion of the year and saw the biggest staffing cuts at NYC Parks, Sanitation and DOT. NYCHA, also facing deep budget cuts in FY2021, is also experiencing heavy use of their playgrounds and plazas; we do not know at this time what the impacts will be. This is important, as NYCHA separately builds and maintains thousands of playgrounds in and around public housing properties.

KEY TAKEAWAY: As it pertains to the maintenance and operation of NYC’s greenspaces, reliance on seasonal or workforce development program staff is a vulnerability during a down economy.

Despite these challenges, there is some hope given the broad coalition of players that advocate for, maintain, and program NYC’s public spaces. This large stewardship coalition is highly networked and facilitated by NYC Parks, City Parks Foundation / Partnerships for Parks and other organizations, but the full range and size hasn’t always been well understood. As noted in the article “Who takes care of New York,” NYC Parks, the largest land manager in the city, is also the most connected broker in the entire stewardship network. Partnerships for Parks is the central broker in New York City’s civic stewardship system⁷⁵.

This network has been documented through a multi-decade project by the US Forest Service called STEW-MAP⁷⁶ (short for Stewardship Map), and shows collaboration for a wide variety of public spaces, from a single tree pit in a residential neighborhood, to city-wide volunteer park maintenance groups, to community gardens coalitions. It includes the full range of parks nonprofits from the Central Park Conservancy to all-volunteer neighborhood beautification groups.

STEW-MAP has catalogued a number of key attributes and makes them available via a dashboard that includes:

- Organizational characteristics (year founded, type of organization, budget, employees, volunteers, etc.)
- Geographic turf (where the group works in the city)
- Social networks—the relationships between groups. STEW-MAP has documented that most groups do not work in a vacuum, but have lots of relationships with other organizations working in other parts of the city

STEW-MAP built its data set in 2007 and again in 2017 through a survey of groups; in 2017, the survey was open for 8 months to capture relevant data. STEW-MAP created and classified all groups working in the public realm into six specific functions, as shown in Figure 10 below. STEW-MAP reports that these 754 organizations have an estimated 540,000 members and staff, with budgets totaling approximately \$800 million. The 754 groups⁷⁷ who supplied data can and do choose multiple practice areas, given the range of work that they perform. We’ve noted response percentages.

⁷⁵ <https://www.thenatureofcities.com/2020/02/14/who-takes-care-of-new-york/>

⁷⁶ STEW-MAP in the New York City Region - https://www.fs.fed.us/nrs/pubs/gtr/gtr_nrs189.pdf

⁷⁷ The estimated number of groups is in the thousands, https://www.fs.fed.us/nrs/pubs/gtr/gtr_nrs189.pdf

Figure 10: STEW-MAP functions and example practices⁷⁸

Function	Example Practices	Select All %
Conserve	<ul style="list-style-type: none"> • Preserving landmarks of cultural significance • Protecting Green Space • Defending endangered species 	71%
Manage	<ul style="list-style-type: none"> • Maintaining & operating parks • Planting flower beds • Hosting volunteer cleanups 	63%
Monitor	<ul style="list-style-type: none"> • Sharing data on water quality • Tracking habitat metrics • Surveying the public on park use 	56%
Educate	<ul style="list-style-type: none"> • Leading after-school classes • Public programming • Preparing employees for green jobs 	54%
Advocate	<ul style="list-style-type: none"> • Community organizing • Supporting environmental justice campaigns • Voting for sustainable policies 	29%
Transform	<ul style="list-style-type: none"> • Making art from repurposed materials • Collecting compost • Installing Solar Panels 	23%

Given this broad coalition of volunteers, donors, and staff working for hundreds of groups with only a portion in New York City parks, there is a tremendous opportunity to support as well as leverage this network, given the current fiscal crisis.

KEY TAKEAWAY: Over the next few years, strategic investments in the coordination, training, and funding of the hundreds of groups working across New York City open spaces could help to help close the gap created by city government cuts.

While the Parks and Open Spaces Partners-NYC (POSP-NYC) coalition is still very new, it needs to determine how to sustain itself in the long term and be most effective for its member organizations, and for parks overall. There are several good models for it to follow, including the Cultural Institutions Group, NYC BID Association, and the Intertwine Alliance (which follows the Collective Impact model, formulated by the Stanford Social Innovation Review).

The Cultural Institutions Group (CIGs) represents 34 nonprofit museums, performing arts centers, historical societies, zoos, and botanical gardens located on public land and in public buildings. Similar to the libraries (see below), the first entity was the American Museum of Natural History, built by the city in the 1860s with the agreement that the city would continue to pay for the maintenance and security of the building, but that the museum would be managed by a private organization with expertise in stewarding its

⁷⁸ STEW-MAP, p 13.

collection. The CIG members pay dues on a sliding scale based on budget and use those funds to hire a lobbyist to represent their interests with the city council and the Mayoral administration and advocate for funding.

The CIGs have a small steering committee that meets quarterly to identify issues and concerns, and meets regularly with the Cultural Affairs Commissioner to voice those concerns⁷⁹. Most recently, at the start of the pandemic, the CIGs spearheaded a daily “Culture @3pm” call open to any interested member of the NYC arts community (whether or not they are a CIG member) to share critical information and provide advice and guidance around COVID planning, financial relief, advocacy, and more⁸⁰. At its height, the Culture@3pm call grew to include up to 300+ participants and hosted elected officials such as Borough President Brewer and Council Member Van Bramer and city agency representatives such as DCLA Commissioner Casals to connect with and answer questions from call participants.

The FY21 Adopted Budget for Dept. of Cultural Affairs was \$25.4M less than the Dept. of Cultural Affairs FY20 Modified Budget. This \$25M reduction represents a 12 percent cut. In addition, funding for the Cultural Institutions Group was cut by \$15.5M.

The NYC BID (Business Improvement District) Association advocates on behalf of its member organizations, which vary widely. Members pay dues on a sliding scale and those dues help pay for a lobbyist and for support services. A recent success of note in this context is the Association’s negotiation with the city’s Small Business Service to ensure that all BIDs are treated fairly by issuing license agreements to all that use the same contract language.

The Intertwine Alliance is a coalition organization in the Portland-Vancouver (Oregon/Washington state border) region that works to represent members’ interests in preserving and nurturing a healthy regional system of parks, trails, and natural areas. Its members include cities, conservancies, natural areas management entities, Audubon societies, parks departments, and funders. Annual dues are charged and are based on organization type and size. The alliance is primarily focused on individual towns and cities in the greater Portland area. They also work closely with the Portland Metro, a regional government entity that has an elected board and has land-use planning powers as well as regional parks, convention and visitor facilities, a regional solid waste system and the Portland Zoo. Metro has worked with the alliance to fund bond elections for regional park acquisition and development.

Nationally, the Stanford University business school has been examining nonprofits and nonprofit models across the United States for a number of years, and has been highlighting challenges, approaches, and formulating a collective impact model, first published in the Stanford Social Innovation Review in 2011⁸¹. The collective impact model consists of five key components that need to be developed:

- **Common agenda:** All participants have a shared vision for change including a common understanding of the problem, and a joint approach to solving it through agreed upon actions.
- **Shared measurement system:** Collecting data and measuring results consistently across all participants ensures efforts remain aligned and participants hold each other accountable.
- **Mutually reinforcing activities:** Participant activities must be differentiated while still being coordinated through a mutually reinforcing plan of action.

⁷⁹ This is based on a conversation with former CIG steering committee member Lynn Kelly.

⁸⁰ <https://www.nytimes.com/2020/05/12/arts/coronavirus-new-york-culture.html>

⁸¹ https://ssir.org/articles/entry/collective_impact#

- **Continuous communication:** Consistent and open communication is needed across the many players to build trust, assure mutual objectives, and appreciate common motivation.
- **Backbone support organization:** Creating and managing collective impact requires a separate organization(s) with staff and a specific set of skills to serve as the backbone for the entire initiative, and coordinate participating organizations and agencies.

A good example of a collective impact organization is the previously mentioned Intertwine Alliance. LISC is the often-mentioned example of a backbone support organization.

KEY TAKEAWAY: Coalitions and membership organizations can be successful when they use their power to advocate for their collective interests. While membership and donations can help fund advocacy, broader support for parks funding across the city is critical and additional sources of funding need to be identified.

Silos

As mentioned earlier, collaboration between city departments has resulted in a number of innovative projects across the public realm, including Green Streets, MillionTreesNYC, and the Community Parks Initiative. Still, the challenges associated with working across departments, given a myriad of rules and regulations that city staff must follow, is daunting. This is especially true for citizen groups navigating the city structure. For example, park stewardship groups are primarily supported by NYC Parks, but projects may require coordination or approvals from an array of city departments including DOT, DEP, and NYCHA, which can be challenging. To alleviate this process, Citizens Committee for New York City offers Neighborhood Leadership Institute workshops on Navigating City Government, and partners with NYC Service for the Love Your Block grant⁸². The Citizens Committee also provides insight for coordination between agencies on stewardship projects, potentially serving as a model for a variety of groups working in public spaces⁸³.

Partnerships for Parks typically coordinates with the Citizens Committee on projects that are beyond the scope of PFP's work in city parks. The Citizens Committee has expertise in working across multiple city agencies and is not housed within any given city agency.

Citizens Committee was formed in 1975 as the City was nearing bankruptcy, and focuses on “making New York City greener, safer, and more resilient.” Citizens Committee’s mission is to “help New Yorkers—especially those in low-income areas—come together and improve the quality of life in their neighborhoods.” Last year, Citizens Committee supported nearly 600 community groups across NYC through multiple grant programs—including the Love Your Block grant. The Love Your Block grant was developed in 2011 through a partnership with NYC Service (a Mayoral office). Every year, Citizens Committee awards 25 grants of \$1,000 to community groups taking on block beautification projects. The grant also includes expedited services from the New York City Department of Parks and Recreation, Department of Transportation, Department of Sanitation, and Department of Environmental Protection. Cities of Services has supported replications of the Love Your Block program across the United States. The

⁸² <https://www.citizensnyc.org/grants>

⁸³ Heather Lubov and Emily Sherrod, City Parks Foundation, personal communication, 9/21/20

Love Your Block program has been identified by the Urban Institute as a model⁸⁴ to improve social cohesion in communities and social capital between community members and city leaders, leading to long-term collective action even after the block clean-up project.

Based on a pending report of “Ten Principles for Equitable Park Systems” by the Urban Land Institute, key to success to public / public collaboration is strong effective leadership in city government that highlights the need for cities to effectively provide improvements that are well maintained.

This leadership extends to collaboration for efforts between public agencies and nonprofits, as demonstrated in NYC Schoolyards, MillionTreesNYC, Community Gardens, and the NYC Plaza program. Each of these programs has resulted in partnerships with nonprofits performing work on the city’s behalf and strategically. Again, with strong leadership, such collaborations between public and nonprofit can easily be expanded, building on the experiences of the City Parks Foundation, the Citizens Committee for New York City, as well as other public/private outreach programs like Green Thumb NYC.

As demonstrated through the STEW-MAP report from the U. S. Forest Service, a wide variety of groups and nonprofits have established informal networks to share best practices, ask questions and help others tackling similar projects. This network is multi-layered and ranges in scope, size and even duration. With additional investment from the city, these networks can be given training, tools, and resources to become more effective, as most are small and working in a wide variety of open spaces across the city.

KEY TAKEAWAY: The large challenge for silos is primarily between city departments. New York City is big and managing it even when revenues are up and business is good, is very challenging. That said, there are ample additional opportunities for stewardship groups and city agencies to better collaborate.

Case in Point: NYC Libraries Campaign⁸⁵

The New York, Brooklyn, and Queens Library systems are first and foremost nonprofits that were created by philanthropists. This sets the library system apart from the NYC Parks and Recreation system, which is first and foremost a public agency tasked with the care, programming, and improvements of public land.

In fact, the New York Public Library’s world-renown research collections and our city’s neighborhood branch system came together as a result of public and private collaboration. First, several private libraries were merged together by wealthy benefactors and opened up for the benefit of the public, with the understanding that the private sector would continue to support their maintenance. Second, New York City responded to Andrew Carnegie’s grant to build neighborhood branches throughout New York City. Like all Carnegie-built libraries, the receiving city or town had to commit to providing the funds to operate and maintain the resulting library in perpetuity.

The New York Public Library raises around \$30 M⁸⁶ annually in private dollars for operations and management on top of the public dollars it receives, with tens of millions more for restricted funds and capital efforts, as well as an endowment valued at more than \$1.3 billion that generates interest used for

⁸⁴ <https://citiesofservice.jhu.edu/wp-content/uploads/2018/02/Urban-Institute-Love-Your-Block-Study-Feb-2018-.pdf>

⁸⁵ Discussion with Heather Lubov, Grey Elam and Charlie McCabe, 9/9/20. Heather Lubov, the Executive Director of the City Parks Foundation, provided much of this background as well as references when she recalled her roles up to 2008, as a former member of the Governmental Affairs team and as Vice President for Development for the New York Public Library.

⁸⁶ https://www.nypl.org/sites/default/files/f_040410a_1a_19_thenewyorkpubliclibraryastorlenoxtildenfound_fs.pdf

operating support each year. There is a strong donor network driven by NYPL⁸⁷ as well as strong advocacy campaigns⁸⁸ that emerge in response to proposed cuts to library budgets. Campaigns for the library system overall are managed collaboratively by the three library systems together and are driven by advocates as well as staff⁸⁹.

That said, the New York, Brooklyn, and Queens library systems are all supported by significant public money, from both New York City and the State of New York, and the Brooklyn and Queens systems are not able to raise the kind of private dollars that NYPL can. Looking at past news coverage, there's a recurring challenge to keep branch libraries open and funded for key programs ranging from teaching children to read, to offering English for speakers of other languages classes for adults.

As we noted earlier, libraries, along with public health and parks systems, are among the first to see budget cuts in economic downturns and are among the last departments to recover their budgets to pre-recession levels. The difference, then, between the library systems and the parks system in New York City is the fact that the library systems have much wider latitude in terms of raising funds from a variety of public and private sources because of their nonprofit status. In fact, in the FY21 budget, libraries saw only a one percent budget cut. We are not suggesting, however, that NYC Parks becomes its own nonprofit, as there would be a multitude of legal and technical issues to resolve, starting with the public trust doctrine in New York State, which puts specific rules on public lands and their usage. We do believe that a strong city-wide parks organization with the ability to fundraise, advocate, advise, and program, or a broader "go-between" organization, like the Local Initiative Support Corporation (LISC), Sanitation Foundation, or a regional land trust coalition, might serve as good examples. (We cover these examples in the "duplication of services" later in this document.)

Private fundraising by NYC Parks itself must follow strict Conflict of Interest Board regulations, and the agency has a staff member dedicated to securing partnership support, primarily from corporations and foundations. There are several other models within the city that allow agencies to raise private dollars, including the Mayor's Fund and the Sanitation Foundation.

The Sanitation Foundation, created under former Commissioner Garcia, was developed with DSNYC to support an event partnership and build future flexibility for funding, partnerships and more creative work. A small staff of three is partially paid for by DSNYC, but fundraising supports all programming. None of the staff have responsibility or approval for any DSNY contract.

The primary focus of the foundation is typically spreading awareness of sanitation policies—such as when the city composting rules changed, as well as reducing clothing waste. Last year the foundation served as the fiscal sponsor for Refashion Week. When setting up the foundation, DSNYC looked to the formation of the NYC Police Benevolent Association and the FDNY Foundation as well as Local Law 181⁹⁰ for language necessary to comply with legal requirements. The foundation has a memorandum of agreement (MOU) with DSNY.

⁸⁷ https://donate.nypl.org/campaign/the-new-york-public-library/c225100?c_src=FROXXPP_QWCGPN

⁸⁸ <https://www.nypl.org/press/press-release/may-4-2017/new-york-city-libraries-launch-letter-writing-campaign-increased-city>

⁸⁹ <https://savenyclibraries.org>

⁹⁰ <https://www1.nyc.gov/site/coib/the-law/local-law-181.page>

Capital Planning

NYC Parks would benefit from a citywide public space master plan effort, building on individual department efforts over the past two decades for parks, open streets, the plaza program, and green streets. The recent report by the New York Building Congress and New Yorkers for Parks, “Building the Future of New York: Parks and Open Space,” lays out a number of key efforts to break down silos and improve the capital planning and budgeting process.

Due in part to strong influence of the office of the Mayor and the discretionary budget process practiced by members of the New York City Council, amounts dedicated for capital projects in NYC are subject to more political pressure and influence than in other cities. On average, NYC Parks receives 6 percent of the city’s annual capital budget⁹¹. Outlays to the capital budget are, by and large, driven by the Mayor’s office and supplemented by discretionary funds from individual City Council members with contributions from Borough Presidents. The result is that high-visibility projects, lobbied for and funded by individual Council Members, are often prioritized over less visible ones. This comes at the great frustration of community advocates, can cause significant delays, and limits NYC Parks’ ability to strategize equitably.

To complicate matters further, NYC Parks’ borough offices find themselves in direct competition—against park nonprofits or community advocates—for public dollars toward capital projects, awarded through the discretionary budget process via individual City Council members. This is more prevalent in the boroughs outside Manhattan, and to an extent, Brooklyn, two boroughs where parks conservancies are more apt to obtain private donations for the majority of their funding needs.

In most other U. S. cities, city staff create a 3-5 to year capital budget for the entire city that includes funding priorities rolled up for each of the major departments, including transportation, water, wastewater, parks, and any utilities. Funding sources are generally obtained through the issuance of municipal bonds by the city. Most common are general obligation (G.O.) bonds, which often require approval by a majority of city voters. Less common are general revenue bonds, which are issued by the city through a vote of the City Council and backed through recurring revenue from usage fees. Common examples of general revenue (G. R.) bonds are water supply projects, road projects, and sanitation projects. This is not the case in New York, as the Mayor and City Council, per New York State law, are authorized to approve both general obligation and general revenue bonds for the city.

KEY TAKEAWAY: The New York City Council’s annual discretionary capital budget process (compounded by its “strong mayor”) is a challenge for long-term capital planning. Additionally, the issuance of outlays undercuts the potential for equitable city-wide planning. In other cities, this is addressed through 3-5-year capital budgets with funding priorities clearly identified by each city department.

Further the NYC Parks capital planning process has a very long timeline, generally between 30 and 45 months (2.5 to 4 years). This is due, in large part, to the capital process of New York City, which “is subject to a myriad of factors including state law, local law, executive order, union contracts, public support, and contractors⁹².” NYC Parks ability to change the public capital process is “inherently limited” requiring action by the Mayor, City Council, and New York State government.

⁹¹ Building the Future of New York. Parks and Open Space, page 3.

⁹² Building the Future of New York. Parks and Open Space, page 9.

KEY TAKEAWAY: Capital projects in New York parks take between 2 and a half and 4 years—significantly longer than other cities. City and state governments could work to reduce the complexity, while allowing pilot efforts led by nonprofit partners to proceed in the short term. Project Rebuild in Philadelphia is using a similar process to build parks, libraries, and recreation facilities.

4. Duplication of Services

Across the country, in the wake of the COVID-19 pandemic, numerous coalitions have come together to improve, maintain, program, and advocate for a wide range of public spaces. However, none come close in size or scope to what is taking place in New York City through the Parks and Open Space Partners - NYC coalition.

As mentioned earlier in this report, 39 park nonprofit organizations contribute about 12 percent of total spending or \$232 million annually for parks across New York City. These organizations represent the largest park conservancies operating in New York City and are part of the STEW-MAP universe. And as documented in STEW-MAP, they are a subset of a much larger and broader network of “friends” groups working in a wide variety of public spaces and parks across New York City. Their efforts encompass 754 groups with 540,000 members and staff and budgets totaling \$800 million. (Without further research, we do not know specifically the intersection of the parks nonprofits reported through ParkScore versus the broader set of groups reported through STEW-MAP.)

We should note a number of city-wide parks nonprofits operate in cities outside of New York (and most are smaller organizations compared to City Parks Foundation or New Yorkers for Parks) while tackling multiple efforts, including advocacy, programming, or capital improvements. As noted in our interviews, City Parks Foundation focuses on activating parks by using programs to bring people into parks, and on community building through Partnerships for Parks. New Yorkers for Parks focuses on advocacy for parks and parks funding and does not receive city funds.

The best examples for city-wide parks nonprofits are Park Pride in Atlanta, the Austin Parks Foundation, the San Francisco Parks Alliance, the Seattle Parks Foundation, and the Fairmount Parks Conservancy in Philadelphia. These organizations advocate for, care for, and improve a wide variety of public spaces by: advocating for parks (pursuing funding for operations, maintenance, capital improvements, and programming); supporting work in parks through volunteer programs; nonprofits and public agencies; a wide variety of programming; community engagement; training and expertise for neighborhood groups and individuals.

A few regional organizations that bear mentioning are The Intertwine Alliance (Portland, Oregon) and Neighbor Space (Chicago / Cook County). As mentioned previously, The Intertwine Alliance is a coalition working to preserve and nurture a healthy regional system of parks in the Portland, Oregon - Vancouver, Washington metropolitan area, with a strong focus on advocacy for increased public funding for both acquisition and management with a strong focus on the regional government authority, Metro⁹³. Neighbor

⁹³ <https://www.theintertwine.org>

Space is a nonprofit urban land trust in Chicago and Cook County that acts as property owner and manager for a diverse collection of city, park district, and county-owned lands used for community gardens and parks. It provides support, training, and services for 109 community garden sites⁹⁴. Neighbor Space was developed through an agreement between the Chicago Parks District and the Cook County Forests Authority to create a focused effort to create, operate, and manage public lands on behalf of two government agencies.

We would recommend investment in additional resources to expand collaboration, knowledge sharing, and the effectiveness of the hundreds of organizations and groups documented in STEW-MAP as a way to encourage collaboration, discourage silos, and document unique services from individual organizations that can be shared or replicated across the city. The most common examples include:

- Increasingly, city-wide organizations such as Park Pride (Atlanta) or the Austin Parks Foundation have been able to obtain a combination of public as well as private funding to give out as grants for individual parks and park projects. These funds can be used for a wide range of programming as well as improvements. Often the “friends of” groups that are recipients are asked to provide the following in return:
 - commitment for one year to perform mutually agreed to tasks (meetings, clean-ups, a certain number of hours)
 - raise matching dollars or provide matching hours, also known as sweat equity
 - receive technical and planning assistance for their proposal
 - work with community organizers to strengthen their friends of groups
 - work with the city parks department to permit and build/install improvements.

We should note that the Partnerships for Parks program provides a number of these services through its collaboration with NYC.

- Local Initiatives Support Corporation (LISC) - LISC began in the late 1970s through support from the Ford Foundation. It serves as an intermediary between local governments, local nonprofits, and communities that understand and are working to fill specific needs. Historically, these have included housing workforce development, small businesses, and even education, with a focus on underserved communities. Many of their local offices have worked to create or improve parks, greenways, and community gardens. (LISC is referenced as an example of a backbone support organization in the Stanford collective impact model.)
- A more “wild” idea would be to create a funding mechanism that allows park advocates to raise funds in a collective way. This could be through a sort of ActBlue for NYC parks (to use a common fundraising platform), or to create a city-wide priorities “list” for parks, with a focus on addressing equity and funding greatest agreed-to needs.

KEY TAKEAWAY: New York City has by far the largest and most complex network of open space organizations in the country, but given budget cuts and use, it also has significant need. With future projected budget shortfalls, this network will only grow in importance.

KEY TAKEAWAY: While there is not significant mission overlap, opportunities exist for investment in additional resources that expand collaboration, knowledge sharing, and collective impact of the

⁹⁴ <http://neighbor-space.org>

hundreds of organizations and groups documented in STEW-MAP. With the right facilitation, this can encourage collaboration, discourage silos, and document unique services from individual organizations that can be shared or replicated across the city.

Early Ideas for Alignment

- The City Parks Foundation (Partnerships for Parks staff) could connect with The Citizens Committee for New York City to understand their organizational needs and vision for future programs in the public realm.
- Care and management of forested natural areas, including the formalization of trails, removal of invasive species, and planting/ongoing care of species best adapted for climate change. A combination of City Parks Foundation, the Natural Areas Conservancy, and the New York Restoration Project are possible players to manage and coordinate work. This reinforces recent U.S. Forest Service and Natural Area Conservancy studies on the return on investment of forested areas, as well as the fact urban heat islands are affected when the tree canopy is greater than 32 percent of total land area.
- Schoolyards are an untapped resource for adding park capacity. 36 percent of all students attend school in a heat island. With 18 million at 1.25 degrees hotter (classified as a “heat island”), 4 million at 7 degrees hotter (classified as a “severe heat island”) and 1 million in “an extreme heat island,” up to 10 degrees hotter.
- Playgrounds on NYCHA properties are currently managed separately, but NYCHA, like NYC Parks, is facing additional budget cuts. Combining efforts and lessons learned through the schoolyards program, the Community Park Initiative and ongoing park improvements may help temper the cuts in projects and services, as could engaging nonprofit partners.

While over 225 schoolyards have undergone transformations in the past 20 years, there are thousands more that need help, including NYCHA playgrounds and those in underserved neighborhoods. Funding has been leveraged at a variety of levels, including public (city and state) and private funds. Lessons learned from the quick build NYC Plaza program could be adapted to get temporary improvements in place, while community engagement and planning with students and parents determines the way going forward.

KEY TAKEAWAY: Sharing “how-to services” for smaller groups can help enhance impact. While there are hundreds of parks and public space nonprofits, according to STEW-MAP, there are hundreds more small, mostly-volunteer organizations that could benefit from an expanded Partnerships for Parks-like set of services that include learning from experienced groups in other parts of the city, how to write appeals for donations or volunteers, how to submit a grant application, and more.

Explore shared “back of house” services for smaller nonprofits (Backbone support organization.)

The array of smaller nonprofits involved in parks, open space, and other public realm efforts could benefit from the expertise and advice of programs like Partnerships for Parks, Green Thumb, the Citizens Committee for New York City. Even business improvement districts that manage and maintain a wide array

of public spaces and professional services such as tax filing, audits, and program evaluators that offer “group discounts” or services exchanges could be considered. There are several examples from other nonprofit categories that may prove as useful examples:

- The Local Initiatives Support Corporation (LISC)⁹⁵ is a national nonprofit that serves, through 35 regional offices, as a go-between between government and local organizations focused on low-income housing, job training, local business support, and other pursuits, including health. LISC can act as funder, using both public and private dollars, lent to local organizations such as Community Development Corporations (CDCs), to construct housing and provide services under agreements brokered with local and regional governments.
- The Citizens Committee for New York City⁹⁶ is a nonprofit focusing on working with New Yorkers, especially those in low income neighborhoods, to come together and improve life in their neighborhoods. The Committee provides a variety of grants as well as resources and training for navigating and working with city government.
- ArtsPool is a nonprofit launched in 2014 with philanthropic support that provides finance, HR, and legal compliance services to small arts organizations in NYC. It is a membership organization currently comprised of 23 members, who become partial owners.
- Similar to LISC, there are a number of regional and statewide land trust coalitions that provide training, legal support, funding (via a revolving fund), and even land sale negotiations on behalf of local land trust members. Local land trusts often have only a few staff and are busy running their organizations and organizing volunteers to steward the lands under their care. In addition to statewide organizations, there are those that focus helping members in a specific region, such as the Compact of Cape Cod Conservation Trusts⁹⁷ or larger organizations that work in collaboration with other land trusts or develop projects on their own, such as the Open Space Institute⁹⁸.

While there are a number of possibilities to consider for the future of POSP-NYC and related efforts, including the partnerships for parks program, we did not find many examples in the literature about the challenges, opportunities, successes, or failures of nonprofit mergers. The best information is from the Stanford Social Innovation Review and its collective impact model. There are also a number of ongoing efforts in New York City that provide detailed examples of how public and nonprofit organizations can work with volunteers on a multitude of projects.

Is there an opportunity to save money within the nonprofit sector by eliminating the duplication of services that NYC’s many parks and open space-focused nonprofits each manage on their own? Experts warn that most nonprofits chronically underspend on their infrastructure, so outsourcing back-office functions may not save money, although organizations that are deeply community-focused and need to keep their local identity could consider back office sharing rather than mergers, which might not generate new revenue or reduce expenses (and sometimes increase expenses at more complex organizations⁹⁹). Social Venture Partners, which has helped numerous entities merge and/or share services, found general enthusiasm for the concept of sharing services, but that organizations have limited ability to contribute funding to make

⁹⁵ www.lisc.org

⁹⁶ <https://www.citizensnyc.org>

⁹⁷ <http://www.thecompact.net>

⁹⁸ <https://www.openspaceinstitute.org>

⁹⁹ https://ssir.org/articles/entry/creatively_combining_the_back_office_a_series_on_shared_service_alliances# and https://ssir.org/articles/entry/merging_wisely

this possible. They found the key needs identified for shared services are often communications and fundraising.

Locally, New York's Hudson Valley-based Dyson Foundation manages a Strategic Restructuring Initiative¹⁰⁰ that funds groups interested in exploring the feasibility of restructuring, planning the restructuring, integrating the restructured entities, and supporting the restructured entity. They also provide resources on best practices.

5. Conclusion

This literature review for the NYC Green Relief & Recovery Fund and POSP-NYC coalition has addressed a set of research requests posed by both groups. We have summarized the key areas that represent opportunities for action, as well as identifying research gaps for future consideration.

Key Takeaways for Funders

We have reproduced the key takeaways, in the order in which they appeared through-out this document, here:

- Approaching open space (the greater public realm) as a comprehensive network at the city level allows for greater integration of services, maximized use of (limited) resources, and enhanced opportunities to address issues of equity.
- Though financial resources are limited, a large network of individuals and organizations can be tapped to advocate on behalf of, and outright care for, open spaces in New York City.
- Open spaces provide places to gather, to process and express concern about larger societal issues, and come together to collectively care for our communities. They support the creation of critical neighborhood networks that allow residents to better weather stresses and crises.
- Green infrastructure in New York City's open spaces provide shade and greenery, but also millions of dollars in effective stormwater management, air filtration, and reduced energy costs. Trees in open spaces provide incredible carbon storage and sequestration. This is a great start, but by expanding applications in parks and natural areas through planting, ongoing care, and creative public access can yield a stronger return on investment.
- Parks have the potential to create significant positive impact. More often, new park projects contemplate not just economic enhancements at large, but strategies that ensure those gains are equally shared by the surrounding communities.
- Parks and open spaces are not safeguarded from, and more often reflect the ebbs and flows of, the economy and prevailing leadership. As seen in the current crisis, the expectation that these spaces perform regardless of circumstance highlights the need for more resilient networks.

¹⁰⁰ <https://dysonfoundation.org/nonprofit-strategic-restructuring-initiative>

- Historical inequities in park access have been compounded by the COVID-19 pandemic, further limiting access to open space when it is more critically needed.
- The stewardship and maintenance of parks and public spaces is as critical as the construction of new parks in addressing issues of access and equity.
- The disproportionate effect of heat on underserved, low-income neighborhoods furthers the need for canopied, proximal green space.
- Overall, the challenge in ensuring access for all to parks is to ensure that parks are open and accessible, maintained consistently across all five boroughs, and are designed with a variety of ages, ethnic backgrounds, and physical abilities in mind. Furthermore, it is incumbent upon open space operators to remember that there is no such thing as a neutral public space, all public space is inherently political.
- Consideration and planning, prior to park design, are needed to mitigate the negative impacts of capital work on housing markets and the displacement of existing communities.
- Rather than the standard public design approval and funding process utilized in NYC, many cities are exploring alternate approaches to address issues of equity and economic benefits.
- Effective community engagement is essential in these efforts and input and design should reflect the desires of the community. Working with local advocacy organizations, organizers, and offering honorariums and childcare as part of the engagement process is critical.
- Many cities, including New York City, have spearheaded initiatives prioritizing chronically underfunded neighborhood parks in capital planning efforts. This has led to increased community engagement and real investment in many neighborhoods.
- Taking lessons from the 2008 Great Recession and its aftermath, we know that parks and recreation departments in this new recession will be the first to be cut and the last to recover. Based on both the reporting by Penn State/NRPA as well as by TPL for City Park Facts/ParkScore, much of the decrease is in operating, maintenance, and programming, affecting smaller parks disproportionately.
- 88 percent of New York City park funding is from public funds, with the remaining 12 percent from nonprofits.
- Dedicated sources of public funds, such as property taxes, sales taxes, impact fees, and other forms of occupancy taxes are not being utilized in NYC for direct funding of parks.
- Coalitions and membership organizations can be successful when they use their power to advocate for their collective interests. While membership and donations can help fund advocacy, broader support for parks funding across the city is critical and additional sources of funding need to be identified.

- The large challenge for silos is primarily between city departments. New York City is big and managing it, even when revenues are up and business is good, is very challenging. That said, there are ample additional opportunities for stewardship groups and city agencies to better collaborate.
- The New York City Council’s annual discretionary capital budget process (compounded by its “strong mayor”) is a challenge for long-term capital planning. Additionally, the issuance of outlays undercuts the potential for equitable city-wide planning. In other cities, this is addressed through 3-5-year capital budgets with funding priorities clearly identified by each city department.
- Capital projects in New York parks take between 2 and a half and 4 years—significantly longer than other cities. City and state governments could work to reduce the complexity, while allowing pilot efforts led by nonprofit partners to proceed in the short term. Project Rebuild in Philadelphia is using a similar process to build parks, libraries, and recreation facilities.
- New York City has by far the largest and most complex network of open space organizations in the country, but given budget cuts and use, it also has significant need. Given future projected budget shortfalls, this network will only grow in importance.
- While there is not significant mission overlap, opportunities exist for investment in additional resources that expand collaboration, knowledge-sharing, and collective impact of the hundreds of organizations and groups documented in STEW-MAP. With the right facilitation, this can encourage collaboration, discourage silos, and document unique services from individual organizations that can be shared or replicated across the city.
- Sharing “how-to services” for smaller groups can help enhance impact. While there are hundreds of parks and public space nonprofits, according to STEW-MAP, there are hundreds more small, mostly-volunteer organizations that could benefit from an expanded partnerships for parks-like set of services: obtaining agreements for ongoing maintenance or improvements with the appropriate city departments; learning from experienced groups in other parts of the city; how to write appeals for donations or volunteers; how to submit a grant application, and more.

Research Gaps

As part of this literature review, the following gaps in existing research were identified:

- In our research, we were unable to locate studies documenting the return on investment of green and gray infrastructure projects. This literature would be instrumental in making a case for the economic benefits and increased investment in parks as green/gray infrastructure.
- Documentation of the ecosystem services provided by green spaces is siloed by separate, but potentially complementary, measurements for stormwater management, air purification, heat reduction (canopy coverage), and carbon storage. The Trust for Public Land’s Conservation economics team has completed a number of reports using a set of models. They can be referenced at: www.tpl.org/economic
- As illustrated in this report, there are many studies on the impact of capital work on equity and displacement, but that research is specific to the housing market. We did not find studies that address the impact of parks on small business relocation. Several BIDs in New York have a higher

level of owner-occupied businesses and store fronts, namely members of the Bed-Stuy Gateway BID, but this is not common.

- Information on the impact of the Great Recession on NYC park nonprofits and conservancies, specifically on budgets, fundraising, and spending between 2008 and 2013, does not currently exist. We provide a list of NYC parks nonprofits surveyed by The Trust for Public Land as part of the annual ParkScore Index research in Appendix B. These organizations have provided spending totals for the last three fiscal years.
- Questions and concerns about the potential increases in domestic violence during the pandemic have been raised by a number of officials, and we believe that this is being tracked. We are not aware of any studies documenting the use of parks and open spaces as an outlet or safe space for those facing abuse.

Appendix A: Funding models for New York City.

A good overview of funding models is The Urban Institute report on “Investing in Equitable Urban Park Systems: Emerging Strategies and Tools.” The authors looked at 20 funding models in use in cities across the United States and offered examples and case studies to consider. We’ve reproduced the 20 models in the table below, whether they are in use in NYC and where they are in use outside of NYC, drawing on examples from the Urban Institute report as well as drawing on independent research.

Model	Equity Considerations ¹⁰¹	Used in NYC	Used widely outside NYC, examples
Bonds & Voter referenda	Can adopt explicit equity goals and criteria and can help redistribute resources to areas in greatest need, especially when paired with equity frameworks	Widely used, but Bond approval is different in NY (state leg + city council)	Widely used, usually required voter approval
Dedicated property taxes	Raise reliable revenue for parks and help redistribute wealth but can also place burden on lower-income property owners (without policies to cushion)	No dedicated property taxes for parks (property taxes are contributed to the city’s general fund)	Pretty Rare, largely through parks districts or a dedicated millage. (e.g.: Chicago, Seattle, Minneapolis, Pittsburgh, New Orleans, others)
Sales Taxes	Raise reliable revenue for parks but generally viewed as regressive instrument because they place a greater proportional burden on lower-income consumers	No dedicated sales taxes for parks (sales taxes are contributed to the city’s general fund)	Pretty Rare, the most notable example is Denver
Fees & Earned Revenue	Ration access to scarce assets and raise revenue from users with higher ability to pay but can also present barriers to lower-income residents and worsen inequities . (CM addition: as observed in the current pandemic, fee & earned income is dramatically	Yes, widely used in Manhattan by nonprofits and by city for events & programming in parks via an established fee structure	Yes, increasingly widely used

¹⁰¹ The Equity considerations detailed here reflect the views of the researchers and authors from the Urban institute with guidance from City Parks Alliance and the advisory panel of experts that consulted.

	down as limits on gatherings by state have severely impacted events and programming		
Land and water conservation funds	Provide resources designed for projects in or adjacent to underserved neighborhoods and communities with lower-income residents	Yes, widely used, very competitive process, now fully funded thanks to federal legislation (summer 2002)	Yes, widely used, very competitive process, now fully funded thanks to federal legislation (summer 2002)
Developer fees, incentives and concessions	If well designed and enforced, can help ensure public benefit from private development	Not widely used for parks, mostly focused on POPS, no parkland dedication ordinance	Yes, used in over half of the 100 largest US cities with specific formulas for residential and hotel construction, restricted to capital projects (land acquisition, capital improvements)
Community & Economic Development Programs	Use federal funds to incentivize projects designed to spur growth and investment in low-income neighborhoods (e.g., recreation facilities)	Yes	Yes
Conservancies, friends groups, and public corporations	Directly involve civic-minded citizens to advocate and fundraise for parks and encourage good stewardship of community assets. Citywide systems can help redistribute resources	Yes, widely used, NYC seen as the birthplace of the movement	Yes, growing rapidly with 2/3s of the 100 largest cities having at least 1 parks nonprofit
Community ownership	Engages local community in the management of local park. If significant investments are needed, they may be beyond the capacity of the community to manage	A few examples, but most are long term lease agreements with city or private landowners, which can cause challenges when leases expire. These are mostly community gardens	Fairly rare, there are some unique joint ventures in Chicago/Cook County and Philadelphia, but ownership varies, with regional nonprofits tackling much of work. Such arrangements are primarily focused on community gardens
Philanthropic partnerships	Often have a pro-equity focus and can be used to engage community and develop accessible park assets	Yes, widely used	Yes, increasingly used, but a few cities stand out: Atlanta, Philadelphia, Tulsa
Water-quality and management through green infrastructure	Flood management and improved water quality are important goals not just from a sustainability and technical perspective but also from an equity one. Integrating green infrastructure for these objectives into parks directly benefits neighborhood properties	Yes, widely used through long-standing partnership between NYC DOT, NYC Environmental Protection and NYC Parks	Yes, increasingly used in more and more cities. Parks are often seen as great places to install green infrastructure that can also be used as park features and amenities
Health care co-benefits	Parks and green space have beneficial impacts on mental health, obesity, and general physical activity for residents in surrounding communities. Health system partners can recognize and value these benefits through partnerships	Independent studies and articles confirming benefits	Mostly indirect, sponsoring programming, park amenities targeting key populations (children, seniors)

Transportation grants	Demonstrates parks' role as important parts of transportation networks, especially as links within active commuting chains	Yes, widespread collaboration with NYC DOT and NYS DOT, especially for greenways, trails and paths	Yes, widespread in cities and states across the USA.
Climate change & disaster resiliency programs	Can mitigate the outsized negative effects of climate change and disaster recovery on low-income neighborhoods	Yes, especially following Hurricane Sandy (Far Rockaways, Coney Island, etc.) Some still TBD: East River Park	Yes, growing in cities that are facing near-term effects, such as Boston, Charleston, Miami
Shared-use agreements with schools	Can be used to benefit resource-constrained communities by enabling efficient use or reuse of public resources	Yes, NYC was among the first, partnership with TPL, NYS	Yes, growing in popularity: Durham, Raleigh, Austin, Boston, Philadelphia, Atlanta, Los Angeles and more
Land-value capture models	A way to enable landowners in a given community to pay for additional amenities in that area. May have limited application in communities without financial capacity to pay for increased services and amenities and can disenfranchise renters or commercial tenants	Yes, a number of examples that vary Bryant Park, Brooklyn Bridge Park	TIF (Tax Increment Financing) models are increasingly common for larger park projects with examples in Atlanta (Beltline), Austin (Waterloo Greenway),
Land trusts	Community land trusts are mostly established to protect affordable housing and conservation land trusts protect and manage neighborhood parks and green space. Advocates for each can work together to advance shared community goals	Yes, for housing and for some community gardens	Yes, more common for housing where CDCs aren't as dominant. Generally, not as common for parks or open space, except if public space is required as part of housing development.
Impact bonds and pay for success	Provide an opportunity to engage new funders on environmental projects and encourage governments and community members to think strategically about public investments and desired outcomes	No	Rare, Washington DC, Baltimore and Atlanta are where a few examples exist
Brownfield conversions	Uses external funds to transform polluted industrial land into green community assets, potentially addressing environmental justice issues	Yes	Yes, growing in frequency and popularity

Appendix B: List of surveyed parks nonprofits by The Trust for Public Land

- 34th Street Partnership
- Abingdon Square Conservancy
- Battery Park City Parks Conservancy
- Broadway Mall Association
- Bronx River Alliance
- Brooklyn Bridge Park / Brooklyn Bridge Park Conservancy
- Bryant Park Corporation

Carl Schurz Park Conservancy
Central Park Conservancy
City Parks Foundation
Flushing Meadows-Corona Park Conservancy
Forest Park Trust
Fort Greene Park Conservancy
Fort Tryon Park Trust / Friends of Fort Tryon Park
Four Freedoms Park Conservancy
Friends of the Hudson River Park / Hudson River Park Trust
Friends of the High Line
Friends of Van Cortlandt Park
Fund for Park Avenue
Greenbelt Conservancy, Inc.
Jamaica Bay - Rockaway Parks Conservancy
Madison Square Park Conservancy, Inc.
National Parks of New York Harbor Conservancy
Natural Areas Conservancy
New York Restoration Project
New Yorkers for Parks
Open Space Alliance of North Brooklyn
Prospect Park Alliance
Randall's Island Park Alliance
Riverside Park Conservancy
Seward Park Conservancy
The Battery Conservancy
The Friends of Governors Island
The Horticultural Society of New York
Times Square Alliance
Van Cortlandt Park Conservancy
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