THE BENEFITS AND COSTS OF URBAN PUBLIC SPACES
We expect many things from our public spaces: we hope that they bring people together, provide cultural opportunities, improve community health, and create environmental benefits. Urban public spaces cannot serve as a solution for all of a city’s problems, but they do hold promise for transforming communities. Yet, questions remain: what frameworks do we have for evaluating the economic, environmental, equity, health, and social impacts of such an investment? How far throughout the city are the impacts felt, and how long will they last? Could a similar project be successful in another city?

The William Penn Foundation commissioned this report to further understand the extent to which empirical evidence supports or refutes the assumptions guiding their grant making. Our report evaluates evidence on the economic, environmental, health, and social benefits and costs of urban public spaces in North American cities from 1990 to the present. We selected over 450 studies with strong support for their findings and a high impact in their respective research communities for in-depth review. We used a broad, multi-dimensional framework for public spaces that considered spaces to be public if social groups view the place as public, if the place serves a function for public use, or if it is managed for a range of uses and activities by different social groups. Our research team included researchers and practitioners, as well as an advisory board with extensive expertise in urban public spaces.
WHAT ARE THE KEY TAKEAWAYS ABOUT URBAN PUBLIC SPACES?

Key Finding #1:

STUDY AFTER STUDY FINDS THAT INEQUITIES IN URBAN PUBLIC SPACES BENEFIT CERTAIN COMMUNITIES AND FAIL OTHERS.

Research shows that public spaces provide a wealth of benefits for cities:

- Create opportunities for social contacts and connections
- Provide places for expressing free speech
- Increase economic activity and property values
- Lower temperatures, reduce stormwater runoff, and promote biodiversity
- Improve mental health
- Provide spaces for physical activity
- Offer health-related information, as well as health programming
- Serve as refuge sites during extreme weather events

However, studies reveal substantial inequities associated with the distribution of these benefits. Public spaces are unevenly distributed across neighborhoods and cities, and the quality of these spaces also varies. Low-income communities and communities of color have less access to high-quality public spaces than whiter and wealthier neighborhoods, and the quality of public spaces has important implications for the health of communities and their...
environment. Poorly maintained public spaces depress property values, attract litter, and incite fear of crime. High-quality public spaces supported through public and non-profit funding are concentrated in whiter and wealthier communities. Local stewardship addresses some inequities in park maintenance, however, reliance on community groups to maintain public spaces can justify budget cuts, reinforce inequities, and place more burden on those tasked with regular stewardship activities. Further, poor neighborhoods face challenges in creating and retaining civic groups, and informal and grassroots groups may struggle to make political connections and remain stable over time. These inequities in our public spaces are persistent and pervasive in urban neighborhoods across the country.

Key Finding #2:

PUBLIC SPACE INVESTMENT THAT CATALyzES ECONOMIC DEVELOPMENT IS OFTEN ASSOCIATED WITH DISPLACEMENT.

Major investments in public spaces that are guided by pro-business interests and focus on economic development (e.g. flagship arts institutions and urban parks) may risk contributing to user, residential, and commercial displacement; exclusion from the planning process; and a change in the social and cultural tone of the local community. Several studies suggest that pro-business investments often exclude or only superficially include residents and community members in the planning process, which limits the ability of
community members to shape the investment and temper negative impacts. Evidence indicates that private ownership of public spaces, which is usually fiscally driven or incentivized, also tends to limit the political, social, and democratic functions of public space and puts constraints on who can actually use the space. While investments driven by business interests have the potential to displace existing residents, targeted investments that create a range of benefits other than business activity may actually restore access to public spaces for local residents who feel that these areas have become inhospitable for them. Further, the social returns on investment in public spaces—such as decreases in crime—have been estimated to be highest in low-income neighborhoods and on vacant and rundown lots. There is little research on the types or characteristics of investment in public spaces that mitigate displacement risk.

Key Finding #3:

**THERE IS SUFFICIENT EVIDENCE THAT THE SPATIAL AND PHYSICAL DESIGN OF PUBLIC SPACES MATTERS FOR CERTAIN ENVIRONMENTAL OUTCOMES, BUT LIMITED EVIDENCE THAT DESIGN IMPACTS SOCIAL OUTCOMES.**

The design of public spaces has critical implications for certain environmental outcomes. Decisions about landscaping directly impact water quality, air quality, and temperature. Parks have cooling effects that are enhanced by the number and placement of trees, the types of vegetation, improved irrigation, and larger overall size. However, evidence is limited that public spaces designed to encourage social encounters foster long-term, deep relationships across social groups. There are disagreements over the extent to which design and aesthetics may encourage or discourage uses of a particular space. This disagreement stems, in part, from the contextual specificity of how the design is implemented or perceived. Studies show sufficient evidence that spaces that are designed or intended for social interactions—such as recreational parks and athletic areas—allow users to form social ties and foster a sense of community based on their racial and class identities, as well as their common interests. However, evidence is limited that these features build social capital across different social groups. Social factors, such as the enforcement of particular rules by community members or authority figures, are shown to have a greater impact on guiding or regulating interactions across social groups than specific design features.
There is evidence that design can foster temporary civility across social groups to coexist and share the space. However, this civility may not translate into meaningful relationships beyond the specific locale of interactions and in some cases can even fall apart during conflicts over the use of public space. Design can also negatively impact social interactions. Different groups have varying needs and interests in a space, limiting the potential for interactions across social groups. For example, single-use spaces such as dog parks can exclude people who are uninterested or do not need to partake in the designated activity.

Key Finding #4:

GENERALIZING ABOUT URBAN PUBLIC SPACES AND THEIR IMPACTS IS DIFFICULT BECAUSE CONTEXT IS IMPORTANT.

The local context is important: what might be successful in one city may have a different outcome in a different city or neighborhood, given the social, political, and economic circumstances. In some contexts, dense vegetation intimidates park users and creates a feeling of isolation, yet in others, users are drawn to it. In some neighborhoods, researchers have found that community stewardship of public spaces has exacerbated inequities as wealthier communities have greater capacity for stewardship. In other neighborhoods, community stewardship has called attention to these inequities, leading to broader engagement in political processes. Programming may lead to increased physical activity in parks, but only under certain conditions. Evidence on the inter-group interactions in public spaces developing into a broader, long-term social cohesion across social groups is supported in certain contexts, and the impact of public space design on who actually uses the public space and how is context dependent.
WHAT ARE THE KEY KNOWLEDGE GAPS THAT LIMIT THE POTENTIAL OF URBAN PUBLIC SPACES?

Knowledge Gap #1:
There is a need for research on alternative public spaces beyond quintessential iterations such as parks and playgrounds. For instance, there is little research on mental health in relation to non-green space public spaces such as public plazas, community centers, and libraries; nor is there considerable research on displacements associated with public space investments beyond parks. Certain types of public spaces were researched less overall, including natural spaces such as beaches; arts and cultural institutions such as museums; and religious institutions that function as public spaces. Future studies should include a broader framework for urban public spaces that reflects how spaces are currently used by the public. This will further understanding regarding how public spaces can be created, designed, and managed to optimize opportunities for social connections, community development, crime reduction, environmental quality, and physical and mental health.

Knowledge Gap #2:
There is a need for more research on the contextual factors that lead to different outcomes. For instance, the question about whether tree plantings are an appropriate strategy to reduce surface and air temperatures depends upon the local climate and water availability. Additionally, would the large-scale gentrification impacts associated with the High Line in New York City also follow smaller public space investments in neighborhoods with different socio-demographics? Most studies tended to focus on large coastal cities...
with diverse populations, most notably New York City and Los Angeles, potentially limiting the applicability to smaller cities with more homogeneous populations. Better understanding “under what circumstances” certain public space interventions lead to different outcomes would allow practitioners and policymakers to design public space interventions to optimize benefits and minimize costs in their local geographies.

Knowledge Gap #3:

There is a need for more inter- and cross-disciplinary research and greater collaboration among researchers, practitioners, and policymakers to address complex questions about our urban public spaces. When, how and why do certain public spaces enable cross-social interactions while others do not? Is there a certain threshold of investment or type of investment that minimizes the likelihood of displacement and marginalization? How to invest in public spaces to improve civic culture, health, local environments, and sense of pride in a place without creating economic displacement is a pressing question for many urban areas. Answering these questions requires incorporating diverse methodological approaches and theoretical perspectives to evaluate the tradeoffs and unintended consequences of investments in urban public spaces. Further, closer collaboration with practitioners that create and manage our public spaces in cities across the country could provide insights into issues that have great context specificity (e.g. conditions where features of urban public spaces facilitate meaningful connections across social divisions).
Knowledge Gap #4:

Research on urban public spaces has uncovered many associations, such as the correlation between proximity to green space and improved mental health. However, many studies are limited in their ability to infer causation or reveal the mechanisms that lead to these correlations. For instance, is green space correlated with mental health because of improved air quality, reduced noise, or the types of social interactions that happen in green spaces? Why do some spatial designs foster social capital and cohesion while others do not? There is a need for more robust study designs to examine whether relationships between public spaces and social outcomes are causal, rather than simply correlated, and there is a need for additional studies to reveal the mechanisms underlying the association. Some examples of such study designs include experimental designs and longitudinal studies to better understand the long-term impacts of public spaces on social capital, economic activity, and health, among other outcomes. Additionally, there are new data sources and technologies to study patterns of use of urban public spaces. For example, locational data could be used to gain valuable information about how far people are willing to travel to visit a public space, the routes taken to a public space, the frequency of visits, and how long visits last. Connecting locational data with social network data would also allow insight into the use of public spaces. This research should also critically evaluate the limits of these new data sources and technologies to fully capture the lived experiences of people in public spaces.
ACKNOWLEDGEMENTS

LEAD AUTHORS

Hamil Pearsall (Temple University), Anneclaire J. De Roos (Drexel University), Stephen Dickinson (Temple University), Patrick L. Gurian (Drexel University), Yuki Kato (Georgetown University), Michelle Kondo (USDA-Forest Service), Asa Lewis (Drexel University)

CONTRIBUTORS

Grace Chung, Sarah Ehsan, Kathleen Fenlon, Marissa Gabriel, Levi Krum, Lindsay McCarthy, Claire McGinley, Casey Mitchell, Radha Pennotti, Dylan Ponticel, Theany Su

ADVISORY BOARD

Marvin Carr (Institute of Museum and Library Services), Richardson Dilworth (Drexel University), Genevieve Dunton (University of Southern California), Myron Floyd (North Carolina State University), Linda Hwang (Trust for Public Land), Maria Jackson (Arizona State University), Kathryn Ott Lovell (Philadelphia Parks and Recreation Department), Toni Griffin (Urban Planning for the American City and Harvard University Graduate School of Design)

The research in this report was produced by the research team above. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of The William Penn Foundation, Temple University, Drexel University, Georgetown University, or the USDA-Forest Service.

WILLIAM PENN FOUNDATION

Commissioned by the William Penn Foundation.