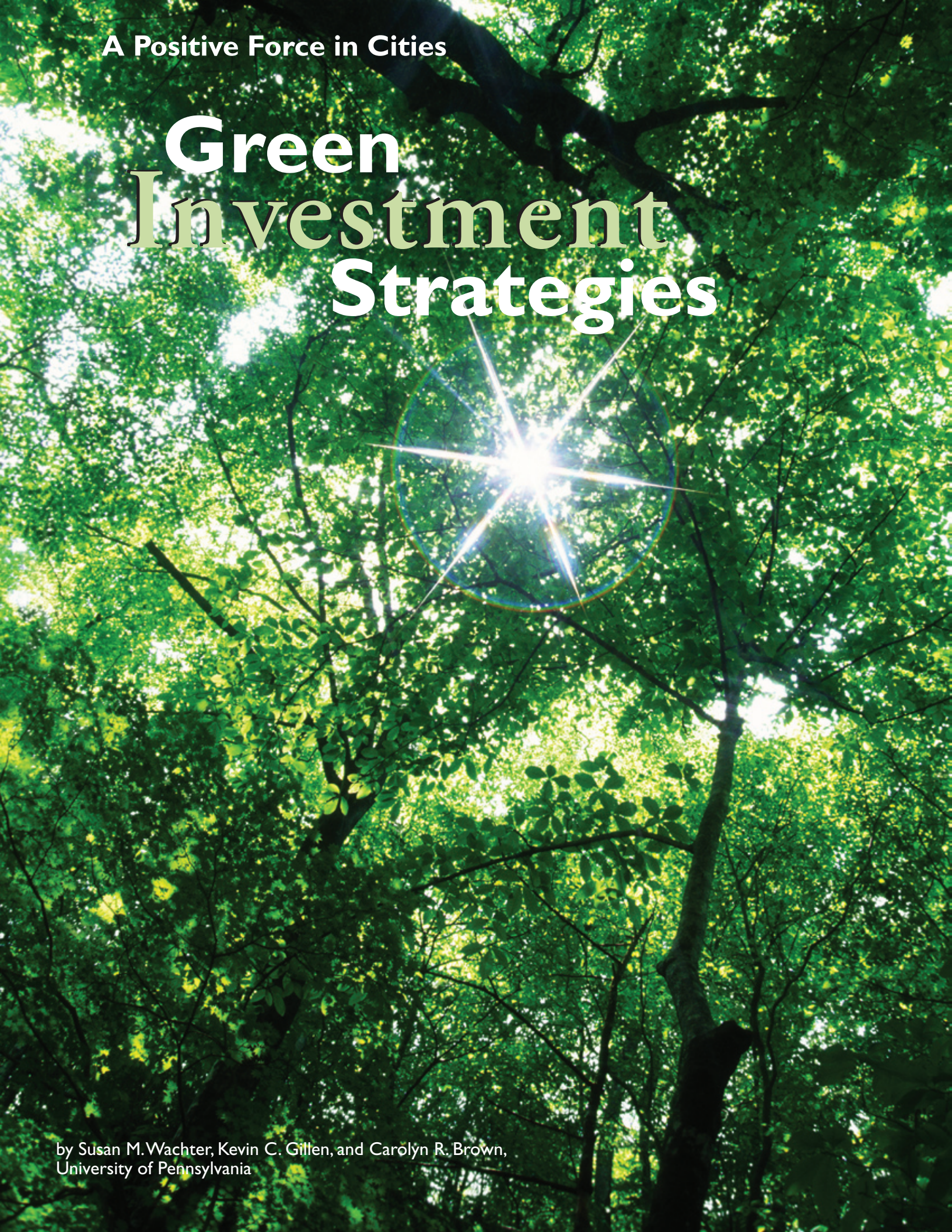
A Positive Force in Cities

Green Investment Strategies



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New research looks at buyers' willingness to pay more for property and uses it to gauge the value of a public, place-based investment called *greening*.

Urban researchers have long known that physical signs of deterioration induce outmigration and abandonment of properties, accelerating neighborhood decline.[1] However, the effects of public investments meant to reverse deterioration have been difficult to quantify.

New research from Philadelphia looks at buyers' willingness to pay more for property and uses it to gauge the value of a public, place-based investment called *greening*. Greening works to transform blighted vacant lots through debris removal, community gardens, newly landscaped commercial corridors, and the like. The idea behind greening is that such investments can change negative perceptions of neighborhoods and consequently, can arrest housing abandonment rates, restore the property tax base, improve quality of life, and spur economic growth.[2]

A Manufacturing Center No More

Between 1950 and 2005, the deindustrialization of Philadelphia resulted in a decline from approximately 2 million people to 1.5 million. Many neighborhoods experienced disinvestment and blight. With spatial patterns of empty lots and intermittent occupancy, policymakers began to think about using green investment activities to seed revitalization.

To help the city assess the value of such investments, University of Pennsylvania researchers analyzed the impact of a multiyear vacant-land cleanup and management program in the at-risk New Kensington neighborhood. The initiative, run by the New Kensington Community Development Corporation and the Pennsylvania Horticultural Society, cleared neglected lots of debris, seeded and landscaped them, and put up rustic wood fencing. It also created an ongoing community gardening program and beautified streets by planting trees.

Between 2000 and 2003, 18,800 lots were cleared of trash, and 12,186 were improved and maintained.

Photograph: iStockphoto

Measuring Green Benefits

When neighborhoods become more satisfying places to live, housing prices increase. Most studies of house-value capitalization add variables such as adjacency to a park to the basic specifications of house size, location, number of bedrooms and baths, and the like. But these studies still use static techniques that fail to capture the gains from new investments and may underestimate a new amenity's benefits.[3]

After the New Kensington report, the researchers studied Philadelphia as a whole. They used geographic information systems (GIS) technology and integrated separately collected datasets into one database. Precise, time-based spatial data showed when and where investment occurred.

City data on property sales, including more than 50 attribute characteristics for over 120,000 properties and over 200,000 sales for the period 1980 to 2005, enabled an evaluation of quality-of-life improvements in neighborhoods that had used green investment strategies. Data on public place-based investments and on neighborhood safety, public transit accessibility, commercial-corridor quality, and schooling were all collected and integrated with the property database. The Pennsylvania Horticultural Society provided data on the location and timing of efforts such as tree plantings and vacant lot stabilization.

By analyzing nearby property sales, the researchers could compare neighborhood values before and after the various types of green investment. (See "Summary of Green Infrastructure Findings.")

Commercial Greening

The phrase "commercial greening" was used to denote improvements to public spaces that featured business activity—for example, commercial streets or shopping centers. When a corridor was rated as being in "excellent" condition, a home's location within one-quarter mile of the corridor was found to impart an additional 23 percent to its value; a home's location between one-quarter mile and one-half mile imparted 11 percent to the value. Houses within a business improvement district (BID) were estimated to have a value 30 percent higher than other local houses.[4]

Photograph courtesy of HAP Inc.

A community garden spruces up the Old Hill Neighborhood of Springfield, Massachusetts.

Vacant Land Management

Adjacency to a neglected vacant lot subtracted 20 percent of a home's value relative to comparable homes farther away from the site. Initiatives such as removing trash, planting shrubs, and adding benches reversed the negative impact and led to a gain in value of 17 percent.

Neighborhood Greening

Investment in green projects positively affected values of nearby homes.

For example, streetscape projects—horticultural treatments to a sidewalk or roadway that improve appearance, particularly of commercial corridors with high visibility and high levels of pedestrian or vehicular traffic—increased surrounding home values about 28 percent relative to similar homes in comparable areas without streetscape improvements.

Employing New Tools

The Philadelphia study may help policymakers in other cities make decisions about green investment. The percent improvement in nearby property values is impressive. So are the takeaways from the contingent valuation method, which assigns a dollar value to the geographically distributed benefits of new community amenities and thus makes it possible to translate concepts such as "quality of life" or "sense of place" into measurable economic variables.[5]

The deeper understanding of investment effects that the new tools offer should also help communities make the case for public, green-based investment to jumpstart growth in at-risk neighborhoods.

Summary of Green Infrastructure Findings

Based upon the 2004 Median-Priced Philadelphia Home of $82,700*

	Percent Impact	Dollar Impact
Commercial Greening		
<= ¼ mile to a commercial corridor in "excellent" condition (net impact)	23%	$19,021
¼ to ½ mile to a commercial corridor in "excellent" condition (net impact)	11%	$9,097
Located in a business improvement district (BID)	30%	$24,397
Vacant Lot Management		
Adjacent to a stabilized and greened lot	17%	$14,059
Neighborhood Greening		
Near a new tree planting	9%	$7,443
Improvements to streetscapes	28%	$23,156

*"Percent Impact" shows the percent change in value. "Dollar Impact" shows the dollar change in value when the percent impact is multiplied times the median value of a typical Philadelphia home—$82,700 in 2004.

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Endnotes

[1] Jerome Rothenbeg, *The Maze of Urban Housing Markets: Theory, Evidence and Policy* (Chicago: University of Chicago Press, 1991).

[2] To read how quality of life helps to attract new knowledge workers to urban places, see Richard Florida, *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life* (London: Pluto Press, 2003).

[3] Parks, like other amenities, may be associated with other positive housing characteristics, however. The correlated attributes may make it difficult to identify separately a park's positive impacts. See Edwin S. Mills and Bruce W. Hamilton, *Urban Economics* (New York: HarperCollins, 1994), 229-230.

[4] BIDs are defined as geographically delineated, quasipublic agencies that provide collective public services, including enhanced security, street cleaning, and streetscape improvements.

[5] For a more detailed discussion on the effects of green-based investment strategies on home values, see Susan M. Wachter, Kevin C. Gillen, and Carolyn R. Brown, "Green Investment Strategies: How They Help Urban Neighborhoods" in Susan Wachter and Genie Birch, eds., *Growing Greener Cities* (Philadelphia: University of Pennsylvania Press, forthcoming).