

Public policies that target crime reduction around parks can directly benefit communities

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Public parks can be valuable assets for communities, but crime in the area can "lock up" that amenity value. Crime directly affects the use that people get from their local parks. If crime is reduced, the environmental value can be unlocked, a new University of Illinois study shows.

"Our research is the first to rigorously quantify this effect, which turns out to account for nearly half of the total value of parks in major U.S. cities," says Peter Christensen, environmental economist at U of I, and one of the study's authors.

The importance of safety in parks is intuitive; yet it had not been well-understood. In fact, other studies have failed to account for the complementarity between safety and parks, and have concluded that [public parks](#) provide little value to a community.

Christensen explains that "several studies estimate amenity value using city-wide samples that include both safe and dangerous parks. This is like taking the average of an amenity and a dis-amenity. It can produce noisy estimates and the appearance of zero value, which may not actually reflect the value of any [park](#) in the sample."

And there are other implications. "These kinds of results can fuel the misconception that people in some inner-city neighborhoods, often minority communities, do not value their parks. Our study shows that in fact they do. And that value goes up as neighborhood parks are made safe," Christensen says.

It's challenging to directly estimate the value of public goods such as parks. Economists have developed methods that make use of economic behavior in the housing market, which captures the value of environmental amenities that households will pay to live near. The [housing market](#) also captures the losses from disamenities such as landfills or, in this case, [crime](#).

Christensen and co-authors David Albouy and Ignacio Sarmiento-Barbieri analyzed housing prices from Chicago, Philadelphia, and New York over a 15-year period. The data were provided through a unique data sharing agreement with Zillow, the online real estate company. Christensen, who helped develop the agreement, says it provides scholars with free access to rich data sets that would otherwise cost millions of dollars in institutional subscriptions.

"This allows economists and others to gain traction on research and policy questions that have been around for a while but have been difficult to tackle without modern empirical methods," he says.

The paper, published in *Journal of Public Economics*, combines the prices and characteristics of all properties transacted in each of the three cities with location-specific crime reports that identify the exact address or geo-location of each incident. Through [statistical analysis](#) with heavy data and computational requirements, the researchers were able to rule out other factors and isolate the relationship between property values and changes in [crime rates](#) within a half mile of the more than 1,300 public parks in the sample.

The study found that housing value increases by 5% within a half mile of a park, if the area is safe. As you get further away from the park, the effect diminishes and ultimately disappears.

If crime levels are double the average rate, there is no premium value in housing prices near parks. And if crime rates are higher than that, there is a negative effect of up to 3%.

In other words, parks may make crime (already a "public bad") worse, Christensen says. "A park can actually become a disamenity in the sense that you would pay to live away from it."

In many of the study locations, crime has been reduced over the 15-year period, while in other areas it has remained constant or increased. The study shows that where crime has gone down, the inherent housing value of parks has been unlocked. And this unlocked value is much larger than you might expect, the researchers note. They estimate that reductions in crime have "unlocked" almost \$7 billion in property value near urban parks in the Chicago, Philadelphia and New York and calculate another \$10 billion of potential value that is still locked up.

Christensen says these findings have implications for public policy. "The first implication is that policymakers need to consider the considerable potential to unlock amenity value through increased safety. The other side of this coin is that terrific parks will lose value if a neighborhood becomes unsafe. This has happened over the past several decades in a number of neighborhoods in the sample," he notes.

A second implication is that allocating resources to reduce crime near parks through targeted efforts such as hotspot policing might be an important first use of public funds. The value of enhancing park features, such as building a new playground in a dangerous park, may be limited by the crime risk.

Christensen cites the recent spike in homicide risk in Chicago. "A number of those shootings that are in our data have involved children caught in the cross-fire in neighborhood parks. These are tragedies for families and communities that can also affect a neighborhood's use of public space in the aftermath," he says.

"It is well-documented that open space is in short supply in many urban areas. For communities that are already housing-constrained and may not be able to commit additional land resources to open space, policymakers and parks departments can consider ways of unlocking value through complementarities like public safety," he says.

"Complements like this [between safety and parks] are attractive because they can provide larger returns to public investments. Tax dollars that reduce crime near parks produce benefits from the overall reduction of risk and also because the park is now a much more valuable place."

Christensen notes that the study does not address the broader implications of how increased property values may affect long-term changes in the composition of the neighborhood. "We do not directly address the issue of gentrification in the current paper," he says. "But policies that are aimed at addressing this complementarity between safety and parks need to consider the longer-run dynamics that can result from unlocked amenity value."

The paper, "Unlocking amenities: Estimating public good complementarity," is published in *Journal of Public Economics*.

More information: David Albouy et al, Unlocking amenities: Estimating public good complementarity, *Journal of Public Economics* (2020). [DOI: 10.1016/j.jpubeco.2019.104110](https://doi.org/10.1016/j.jpubeco.2019.104110)

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