 **A resource from**

Economic Benefits of Parks

*Economic impact studies document the many and substantial economic benefits generated by parks. This guide identifies major studies, summarizes key findings of each and provides hyperlinks to the studies.*

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# Summary

Economic impact studies identify a variety of economic benefits generated by parks. The studies described in this guide each analyzed one or more of these benefits, including:

* Increased property values
* Increased tax revenues
* Decreased medical costs through increased exercise
* Increased tourism revenue
* Improved attractiveness of communities to homebuyers and businesses
* Decreased stormwater treatment costs

# Background

## Key Economic Benefits

Parks provide a great benefit to citizens, both those who live nearby and tourists. In addition to their many environmental benefits, including preserving plant and animal habitat, decreasing air pollution, and water filtration, parks create an economic benefit for both governments and individuals. Creating well planned parks and preserving sufficient land for them can generate financial returns that are often many times greater than the money initially invested into the project, even when maintenance costs are factored in.

Homebuyers prefer homes close to parks, open space, and greenery. Proximity to parks increases property value, thereby increasing property tax revenue. Research has shown that a 5% increase in property values for houses within 500 feet of a park is a conservative estimate of the change in property value due to proximity to a park. Companies often choose to locate in communities that offer amenities such as parks as a means of attracting and retaining top-level workers.

Depending on their size, parks can draw visitors from near and far, bringing tourism revenue to local restaurants, hotels, snack shops, and stores. Parks can host festivals, concerts and athletics events, bringing additional boosts to the local economy.

Parks decrease health costs and support productivity, both through encouraging exercise and reducing air pollution. A park’s plants absorb air pollutants such as nitrogen dioxide, sulfur dioxide, carbon monoxide, ozone, and some particulates, reducing the impacts they have on peoples’ cardiovascular and respiratory systems. Parks provide low or no-cost recreation and encourage exercise. They bring people into nature, make outdoor recreation more accessible, and provide safe and attractive places for individuals and families to exercise and play.

Stormwater flows off of impervious surfaces like roads, parking lots and buildings, picking up pollutants and carrying them either directly to waterways or to water treatment plants. During large storms, capacity at treatment plans can be exceeded, resulting in untreated rainwater and household sewage being released into waterways. In parks, unpaved, pervious surfaces absorb rainwater, recharging ground water supplies and allowing storm runoff to be released more slowly. Vegetation stores water and allows some to be evaporated. Reduced runoff and increased water storage can decrease the necessary size of a community’s stormwater management system and leads to significant savings in water treatment costs.

## Related Benefits

While this guide focuses on economic benefits, it is not meant to diminish the importance of the environmental and social benefits of parks.

Related guides at [ConservationTools.org](http://conservationtools.org) include:

* Economic Benefits of Biodiversity
* Economic Benefits of Land Conservation
* Economic Benefits of Trails
* Economic Benefits of Smart Growth and Costs of Sprawl
* Environmental Benefits of Conservation

## Organization of Guide

This guide presents an inventory of studies. The heading of each section is the title of a study and is hyperlinked to the [ConservationTools.org](http://conservationtools.org) library listing where the study can be viewed or downloaded. The organization responsible for the study is given, followed by a summary of the key economic findings of the study.

# Studies of Pennsylvania Parks

## The Economic Significance and Impact of Pennsylvania State Parks: An Updated Assessment of 2010 Park Visitor Spending on the State and Local Economy

*The Penn State Department of Recreation, Park and Tourism Management*

Prepared for the Pennsylvania Department of Conservation and Natural Resources, this study found that:

* In 2010, Pennsylvania’s state parks hosted 37.9 million visitors who spent $859 million on their trips, including $201 million in spending by out-of-state visitors.  The direct effects of this were 9,435 part-time and full-time jobs; $227.2 million in wages, salaries and payroll benefits; and $360.6 million in value added benefits.
* [As compared to 2008,](http://conservationtools.org/libraries/1/library_items/726) there were 4.3 million more visitors and $121 million more in visitor spending.
* This report includes both statewide and park specific analyses and a comparison the results of similar studies from other states.  For example, Pennsylvania’s state parks generated twice as many sales as did New Jersey’s, and a similar amount to New York’s.

## How Much Value Does the City of Philadelphia Receive from its Park and Recreation System?

*The Trust for Public Land’s Center for City Park Excellence, written for the Philadelphia Parks Alliance*

From the Fairmount Park system to the activities and facilities of the Philadelphia Recreation Department to the broad tourist appeal of Independence National Historical Park, parks provide Philadelphians with so many joys and benefits that many residents would not want to live in the city without them. The city's parks provide hundreds of millions of dollars of economic benefits. In 2007, the city’s parks:

* Increased property tax revenue to the city’s treasury by $18.1 million due to parks enhancing the value of nearby properties.
* Generated $5.2 million in tax receipts from spending by tourists.
* Increased the city’s collective wealth through $40.3 million in net income from tourists and $688.8 million in increased property values.
* Saved the city $5.9 million due to reduced stormwater treatment costs, $1.1 billion in the value of recreation that occurred at parks, $69.4 million in health benefits from exercise done in parks, $1.5 million from the absorption of air pollutants by the city’s trees and shrubs, and $8.6 million in community cohesion benefits.

In summary, the park system provided the city with $23.3 million in increased tax revenue, $729 million in increased resident wealth, $16 million in savings of governmental expenditures and $1.15 billion in resident savings.

# Comprehensive and National Studies

## Measuring the Economic Value of a City Park System

*The Trust for Public Land*

* In 2003, two-dozen park experts and economists collaborated to identify the economic benefits of a city park system. While some benefits cannot be economically quantified, such as the mental health value of a walk in the woods, seven economic benefits of parks were identified. This paper describes and provides a case study for each.
* Proximity to parks increases property value and increases revenue from property taxes. Research of property values has shown that a 5% increase in property values for houses within 500 feet of a park is a conservative estimate of the change in property value due to proximity to a park. In Washington, D.C., parks range in size from the 1,754 acre Rock Creek Park to small parks surrounded by homes. The 5% average increase was applied to D.C. houses within 500 feet of a park. Because of the increased value, parks increased property values and allowed D.C. to earn an extra $6,953,377 in property taxes in 2006.
* Parks lead to increased sales tax from spending by tourists who visit primarily because of a city’s parks. Some parks, like Balboa Park in San Diego or Central Park in New York, are tourist attractions by themselves. Other parks host festivals, concerts and other events. In 2007, park-derived tourist spending in San Diego in 2007 was an estimated $114.3 million, which generated $8.6 million in city taxes.
* Parks provide city residents with free or low cost recreation. Because city parks are generally free to use, their value can be calculated by determining what park users would be willing to pay for a similar recreation experience in the private market. In 2006, the use of Boston’s park and recreation system was valued at $345,352,000.
* From jogging and bike paths to playgrounds, to sports facilities, parks provide a multitude of ways to stay healthy. In Sacramento, California’s 5,141 acres of parks, about 78,000 residents sufficiently engage in active activities (moderate, vigorous, or strenuous activity for at least half an hour, three days a week) to improve their health. This activity created $19,872,000 in medical savings in 2007.
* Strong webs of human relationships lead to stronger, safer and more successful neighborhoods and in some cities, parks strengthen this social capital. One measure of how parks contribute to community cohesion is the money and time residents give to their parks. In Philadelphia, this was measured by calculating the financial contributions to “friends of parks” organizations, and by volunteer hours given to improve parks. In 2007, this created a community cohesion value of $8,600,000.
* City parks lower the cost of treating storm water and absorb air pollutants. In some cities, stormwater flows off of impervious surfaces like roads and sidewalks, picks up pollutants, and flows into waterways. In other cities, stormwater flows into water treatment plants. During large storms, treatment capacity can be exceeded, resulting in untreated rainwater and household sewage being released into waterways. In parks, unpaved, pervious surfaces absorb rainwater, recharging ground water supplies and allowing storm runoff to be released more slowly. Vegetation stores water and allows some to be evaporated. The cost savings this provides is significant. In 2007 in Philadelphia, parks reduced runoff from rain by 496 million cubic feet. Philadelphia can treat stormwater at a cost of 1.2 cents per cubic foot. Therefore, its park system provided the city with $5.9 million in stormwater retention.
* The plants in a city park absorb air pollutants such as nitrogen dioxide, sulfur dioxide, carbon monoxide, ozone, and some particulates, reducing the impacts they have on residents’ cardiovascular and respiratory systems, reducing health-care costs and decreases in productivity. In 2005, the trees in Washington, D.C.’s parks removed 244 tons of carbon dioxide, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. This service is valued at $1,130,000.

## Economic Impact of National Parks

*Headwaters Economics*

http://headwaterseconomics.org/apps-public/nps/impacts/

Headwaters Economics created this interactive web page to show how protected public lands such as national parks can play an important economic role for local communities. The web-based tool lists visits, non-local spending, and the number of jobs created in gateway communities for each of the National Park Service units.

* Visitation, tourism, and jobs related to nearby public lands annually contribute billions to regional economies while creating hundreds of thousands of private sector jobs.  The economic benefits extend far beyond tourism.  The greatest value of natural amenities and recreation opportunities often lies in the land’s ability to attract and retain people, entrepreneurs, their businesses, and the growing number of retirees who locate for quality of life reasons.

## The Benefit of Parks: Why America Needs More City Parks & Open Space

*The Trust for Public Land*

* City parks and open space improve our physical and psychological health, strengthen our communities, and make our cities and neighborhoods more attractive places to live and work. Numerous studies have shown the social, environmental, economic, and health benefits parks bring to a city and its people.
* Homebuyers prefer homes close to parks, open space, and greenery. In Boulder, Colorado, a greenbelt added $5.4 million to the total property values of one neighborhood. Other things being equal, there was a $4.20 decrease in the price of residential property for every foot one moved away from the greenbelt, and the average value of homes next to the greenbelt was 32% percent higher than those 3,200 feet away.
* Parks attract tourists, filling hotel rooms and bringing customers to local stores and restaurants. As community signature pieces, parks offer a marketing tool for cities to attract businesses and conventions. Parks can be used to hold festivals, concerts and athletics events, bringing additional boosts to the local economy.
	+ In Minnesota, Chain of Lakes received 5.5 million visitors in 2001, making it the state’s second-biggest attraction after the Mall of America. At Chain of Lakes, residents and tourists enjoy biking, walking, jogging, rollerblading or skiing around five city lakes attached by a 12-mile system of walking and biking paths. Each of the lakes is surrounded by parkland featuring a variety of amenities.
* Green space in urban areas provides substantial ecosystem services. The U.S. Forest Service calculated that over a 50-year lifetime, one tree generates $31,250 worth of oxygen, provides $62,000 worth of air pollution control, recycles $37,500 worth of water, and controls $31,250 worth of soil erosion.
* A park’s trees store water, reducing the rate at which it flows into a city’s stormwater treatment facilities. Parks increase the amount of a city’s pervious surfaces, which allow rainwater to infiltrate into the ground. Incorporating trees and parks into a city’s infrastructure can decrease the necessary size of the city’s stormwater management system.
	+ Garland, Texas’ tree cover prevents 19 million cubic feet of stormwater from having to be treated, a savings of $38 million. Building facilities to handle that amount of stormwater would cost $38 million. Instead of a flat stormwater treatment fee, the city now bases the fee on a property’s impervious surface and the volume of stormwater the property generates, encouraging property owners to plant more trees.

## The Economic Benefits of Open Space, Recreation Facilities and Walkable Community Design

*Active Living Research*

This article reviews a sizable body of peer-reviewed and independent reports on the economic value of outdoor recreation facilities, open spaces and walkable community design. It focuses on benefits that accrue to nearby homeowners and to other open space users.

* Open spaces such as parks and recreation areas can have a positive effect on nearby residential property values and can lead to proportionately higher property tax revenues for local governments (provided municipalities are not subject to caps on tax levies). A study of 193 parks in Portland Oregon found that parks increased the value of homes within 500 feet of a park by $845 to $2,262. Another study of that area found that large natural forest areas created an even larger rise in property values, an average of $10,648 for homes within 1,500 feet of the forests, compared to an average increase of $1,214 for homes within 1,500 feet from urban parks or $5,657 for specialty parks (playgrounds and skate parks). This increase may allow a park or recreation area to pay for itself, as was the case for a $5.4 billion green belt in Boulder, Colorado, though not if there aren’t sufficient nearby residential properties. Increased property taxes may not be able to completely cover a parks cost. This was the case for a 7.9-mile greenbelt in Austin, Texas, where the city was able to meet 28.4% of the annual debt charges from the greenbelt’s construction.
* The houses within 500-600 feet of open space receive the greatest increase in property value. Community parks of at least 30 acres increase the value of properties out to 1,500 feet, but 75% of the premium value generally occurs within 500-600 feet. Increasing the size of a park tends to increase the rise in property values, but proximity to the park has a greater impact than park size. Access to a park is important, and direct paths to a park and parks surrounded by roads are both factors that will cause a greater boost to nearby property values.
* The increase in property values due to proximity to open space occurs in urban, suburban and rural areas; the impact is greatest in urban areas. In rural and suburban areas, it is the houses near preserved open spaces and farmland that are associated with increases in property value.
* It is less expensive to provide roads, water and sewer services to homes in compact, walkable developments than it is to homes in large, suburban developments. A study found that Rhode Island could save more $1.4 billion over 20 years if the state’s next 20,000 housing units were built within existing urban areas instead of in undeveloped areas. The savings are due to decreased costs for providing roads, schools and utilities as well as the benefits of not losing agricultural land to development and the prevention of decay of urban centers.
* Some studies estimate that using a compact, walkable neighborhood design can save developers 32% on the cost of providing infrastructure services.
* Open space tends to require fewer municipal services than residential, so land preservation can decrease a community’s tax burden. The design elements used in these neighborhoods can also create a tax savings on infrastructure. In one such neighborhood, swales were used to direct stormwater over porous soils, which irrigated nearby agricultural fields and saved $800 per lot compared to conventional storm sewer construction.
* The parks, open spaces and greenbelts offered by compact, walkable neighborhoods, (also known as traditional neighborhood development), create higher housing prices, create marketing opportunities, and tend to cause the neighborhood’s houses to sell more quickly than conventionally designed neighborhoods.

## How Cities Use Parks for Economic Development

*American Planning Association*

This study gives five key points on how city parks are a source of positive economic benefits and provides case studies for each. City parks:

* Increase real property values
	+ Chattanooga,Tennessee: In the early 1980’s, the city worked to lure middle-class residents back to the city, which faced rising unemployment and crime, polluted air, and a deteriorating quality of life, by cleaning the air, acquiring open space, and creating parks and trails. Property values rose by more than $11 million, a 127.5% increase.
* Increase municipal revenues
	+ Chattanooga, Tennessee: The city’s work in the early 1980’s to improve quality of life resulted in a 99% increase in combined city and county property tax revenues between 1988 and 1996.
	+ Shopping Districts: Prices for products in districts with trees are an average of 11% higher than in treeless districts. The quality of products are rated 30% higher in districts with sidewalk landscaping than in those without.
	+ Oakland, California: The East Bay Regional Park district stimulates an estimated $254 million a year in park-related purchases.
* Attract and retain affluent retirees
	+ A 1994 study of retirees asked respondents to indicate the importance of 14 features in their decision to move to a new location. Their top three factors (in order of importance) were scenic beauty, recreational opportunities and mild climate.
* Attract knowledge workers and talent to live and work
	+ Industry today is composed of smokeless industries, high technology, and service-sector businesses, collectively referred to as the "New Economy." The workers in the New Economy, “knowledge workers” sell their knowledge, as opposed to physical labor, as the main source of wealth creation and economic growth. They work for companies tied not to a certain location in order to achieve a competitive advantage but to retaining and attracting more talent. Knowledge workers prefer places with a diverse range of outdoor recreational activities, from walking trails, to cycle friendly cities, to rock climbing. A 1998 study found that quality of life in a community increases the attractiveness of a job by 33 percent.
* Attract homebuyers
	+ A 2001 survey by the National Association of Realtors found that 57% of potential homebuyers would choose a home close to parks and open space over one that was not. Fifty percent would be willing to pay 10% more for a home located near a park or protected open space.

## How Smart Parks Investment Pays Its Way

*New Yorkers for Parks and Ernst & Young, LLP*

* An extensive analysis of New York City’s parks shows that strategic investment in revitalizing parks yields significant economic returns to the city, investors and neighboring communities. While not all park investments have generated economic returns, strategic planning, effective maintenance and community involvement can lead to successful park investments that create economic revitalization.
* City wide, across different demographic areas, parks have created economic returns. There are cases where city parks increased the value of nearby commercial real estate by up to 225% and residential real estate by up to 150%. City parks have caused turnover rates to drop to less than 1%. Park improvements have been paid for by returns from increased park use and concessions.
* One case study provided is Bryant Park. Opened as a public space in the 1880s, it has seen high and low points, but by the 1960s its decline was severe and in the 1970s it was known for crime and drugs. An additional assessment on adjacent properties and public and private funds was used for a decade long work to completely overhaul the park. In 1991, a new Bryant park opened, with improved maintenance and security, restored sculptures, and new concessions, facilities and events.
	+ Approximately 20,000 people visit it each day. Moveable chairs attract nearby workers on lunch breaks, and local businesses view the park as an employee amenity and use the park for outside lunch meetings. The park is a tourist draw and residents come by the thousands for outdoor movie screenings, free concerts, a free outdoor library and the chance to enjoy fresh air in the center of Midtown.
	+ Financially, the city and the local business owners made a sound investment. The entire neighborhood has become more desirable. Between 1990-2002, asking rents for commercial office space near Bryant Park increased between 115% and 225% as compared to increases ranging from 41% to 73% in the surrounding submarkets.

# Library

## Related Library Categories at ConservationTools.org

Economic Benefits of Parks

## Featured Library Items at ConservationTools.org

[Featured library items are identical to those studies summarized in this guide.]

# Related Guides

* Economic Benefits of Biodiversity
* Economic Benefits of Conservation
* Economic Benefits of Trails
* Economic Benefits of Smart Growth and Costs of Sprawl
* Environmental Benefits of Conservation

# Experts

Elana Richman

Richman performed the research for this guide.

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