



ERA

Economics Research Associates

Final Report

**Real Estate Impact Review of Parks
and Recreation**

Submitted to:

Illinois Association of Park Districts

Submitted by:

Economics Research Associates

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20 E. Jackson Boulevard Suite 1200
Chicago IL 60604
312.427.3855 FAX 312.427.3660 www.econres.com
Los Angeles San Francisco San Diego New York
Chicago Washington DC London

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Executive Summary

Economics Research Associates (ERA) was engaged by the Illinois Association of Park Districts (IAPD) to highlight current research literature relating to the real estate impacts generated by proximity to parks and recreation in Illinois.

The literature review found that neighborhood and community parks have a potentially positive impact on surrounding residential communities. Based on studies reviewed by ERA, the following benchmarks were noted:

- Neighborhood parks can provide up to a 20% increase in housing values for those homes facing the park. Benefits from a neighborhood park can extend to approximately 600 feet, with houses nearer to the park receiving the majority of the benefit.
- Community parks may provide benefits up to 33% of the residential real estate value. Homes within 1,000 feet of a large community park may receive a 9% increase in home value. Positive externalities of a community park may extend up to 2,000 feet.
- ERA's approach also looked at value enhancements generated by other park / open space formats, including greenways, which are noted in the body of this report.

Real Estate Impact

While parks are generally accepted as beneficial, it can be challenging for communities to determine the specific economic and fiscal benefits generated by parks and recreational facilities and open space. Parks can affect a community's financial well being, environmental quality, social atmosphere, and health; as well, on-going maintenance requirements generate costs to be covered.

For the purpose of this analysis, literature on how parks affect real estate values will be reviewed. From these papers, ERA will draw general conclusions on the economic effects of parks on residential real estate. Economic literature has widely defined parks and open space, because of the variety of classifications it is appropriate to divide the research into types of open space. A few of the studies have not specifically defined open space and therefore have been discussed in the general section.

Greenbelts and Boulevards

Greenbelts and Boulevards are long narrow green spaces provided to enhance the natural beauty of an area. Many greenbelts were created from former railroad lines that had fallen into disrepair. Park planners took these difficult spaces and created useable space that frequently includes hiking or biking paths. An older concept is the green areas that surround large streets leading to the name parkway or boulevard. As with all forms of parks, communities want the benefits to outweigh the cost of building and maintaining park land. In response, scholars have studied the effect of greenbelts with numerous analysis techniques. Many areas have taken a simple survey approach to determine the value of a greenbelt to nearby home owners. Unfortunately this analytical method does not provide clear and quantifiable benefits. The following studies used statistical analysis of real estate appraisal and sales values to provide a quantifiable benefit.

Greg Lindsey, Seth Payton, and Ray Irvin, with the Center for Urban Policy and Environment at Indiana University, are doing current work on the impact on land values based on proximity to green ways in the Indianapolis market. Their research, not yet finalized, highlights a complicated relationship between land value and proximity to greenways. Their research, based on MLS real estate sales data analyzed in a GIS format, points to a number of initial conclusions. Research suggests that proximity can generate a premium of 11% in value over the average price for homes across Indianapolis.

John Nolen found in 1913 a 31% premium for houses in Kansas City along the boulevard and 16% average premium for the neighborhood surrounding Cambridge field. Nolen used his information to determine the impact of parks on tax rolls.

Correll Lillydahl and Singell found that when compared to houses 1,300 feet away from a greenbelt in Boulder, those houses that are adjacent to the greenbelt experience a 25% premium. Homes next to the greenbelt have market values that are 32% higher than similar properties 3,200 feet away. The same study found that housing prices (in 1978 dollars) declined by an average of \$4.20 for each foot of distance from a greenbelt up to 3,200 feet.

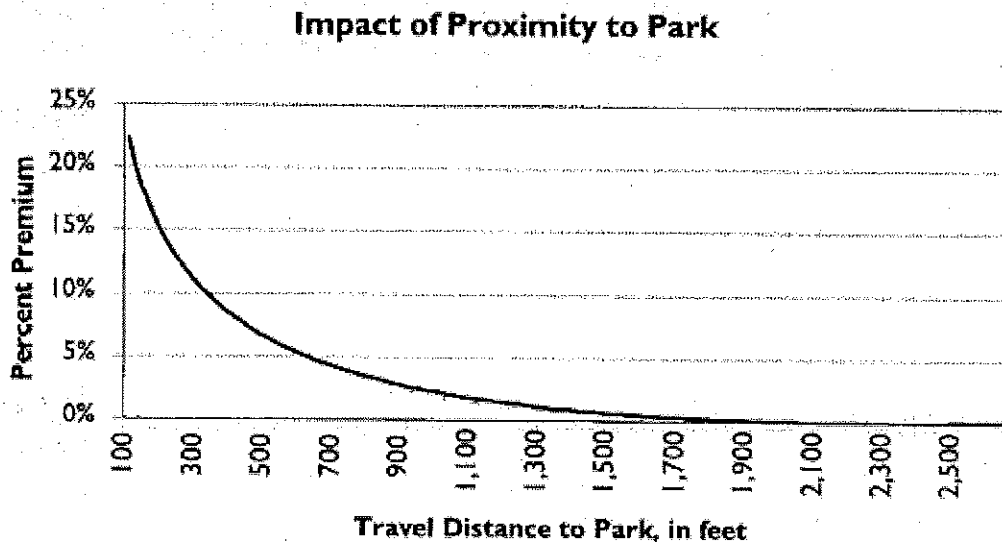
Neighborhood Parks

Moorehouse and Smith 1993 – This team studied rowhouses in 19th century Boston. The advantage of this study is the homes were remarkably similar allowing the team to use econometric methods to determine the effects of location and architecture on property values. Homes abutting Victorian parks sold for 11.5% premium, while houses surrounding federal style parks experienced 59% premiums. While this

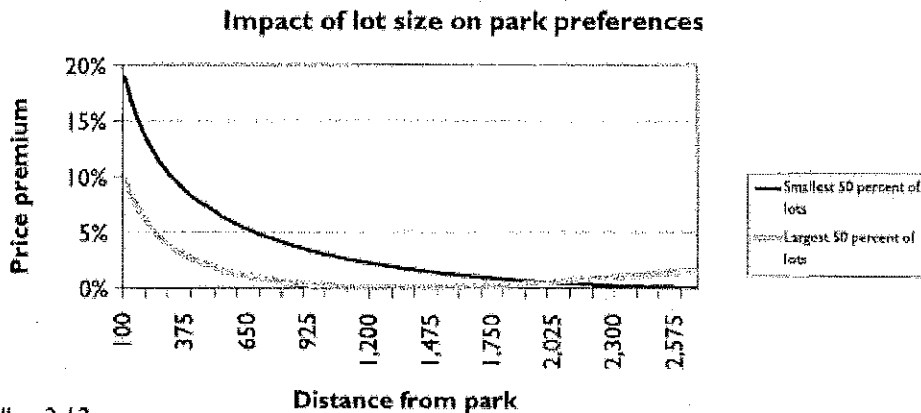
study does show that neighborhood parks affected property values historically, it does not provide a good guideline on how much contemporary values are enhanced.

John Weicher and Robert H. Zerbst in 1973 conducted a study on the externalities created by neighborhood parks. They hypothesized that if there are a fixed number of parks in an area and people value parks then there will be an indication of the value of the park visible in the price differences for homes. Their research found a 7 to 23% premium for houses facing a neighborhood park when compared to similar houses one block from the park. Homes that back up on the park have a similar value as those one block from the park. This indicates that distance is not the sole factor in the value of a park. Orientation of homes around the park is crucial in valuing properties. This finding has been replicated in Miller's later work on Dallas suburbs.

Andrew Miller's regression analysis focused on single-family homes in a suburban environment in a warm climate. Therefore the results of his analysis will best pertain to areas with similar characteristics. Homes that were immediately adjacent to parks had a 22% price premium over homes that are 2600 feet away from a park. The majority of the park premium, about 75%, is found within a travel distance of 600 feet to the park.

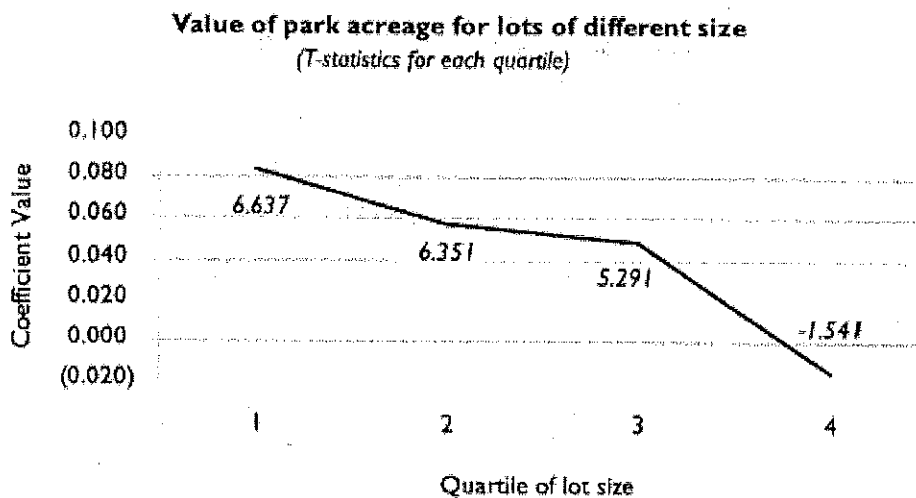


He also found that large parks are more valuable to residents than small parks, but it is a less important variable than proximity in his findings. Homes on small lots value parks more in the form of premiums than homes on larger lots.



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Small lot prices also reflect a value for proximity to parks that is stronger than the homes on large lots. Parks bordered by roads provide a higher premium to nearby real estate than those bordered by private homes.



Crompton wrote a good overview on the role of parks in real estate values as found by researchers. He concludes that residential properties near parks regularly attain higher property values than similar residential units that are not within the park's vicinity. From this information, scholars conclude that neighborhoods with parks yield high property tax income for the community than similar neighborhoods without the benefit of parkland. Crompton found many studies suggest that the gain in property tax for the community will pay for the costs associated with building and maintaining the park. This concept has been named the "proximate principle" and was first suggested and empirically verified by Frederick Olmstead, an early researcher on parks, about Central Park in New York.

A resurgence of research in the 1960s led to 20 out of 25 studies showing a positive net economic impact of parks. Several of the studies looked at the impact of property value of parks with different types of uses. These studies found that the noise, congestion, and other externalities related to active recreation park reduces but does not eliminate the positive effect on property values by neighborhood parks. Parks with a passive recreation focus seem to provide the highest positive effect on property values.

There are some instances where studies found that parks did not have a positive impact on property values. These instances include poorly maintained parks, parks that are not easily visible from the street and therefore become a haven for undesirable activity, and when parks reduce the privacy of nearby residences. While these studies found the effects to be primarily positive, quantifying the positive influence of parks hinges on a wide variety of variables.

Crompton summarizes his findings as "a positive impact of 20% on property values abutting or fronting a passive park area is a reasonable starting point guideline. If the park is large (say over 25 acres) well maintained, attractive, and its use is mainly passive, then this figure is likely to be low. If it is small and embraces some active use, then this guideline is likely to be high. If it is a heavily used park incorporating such recreation facilities as athletic fields or a swimming pool then the proximate value increment may be minimal on abutting properties but may reach 10% on properties two or three blocks away." While quantifying the economic impact is useful, for successful application a general guideline for the distance over which the proximate impact of parkland extends. Evidence suggests that "it is likely to have substantial impact up to 500 feet".

Bolitzer and Netusil focused on Portland, Oregon real estate values near open space. They estimate that homes located within 1,500 feet of a public park sell for \$2,262 (in 1990 dollars) more than homes located more than 1,500 feet from any open space

An earlier study than the previously mentioned, conducted by More, Stevens, and Allen, of property surrounding four parks in Worcester, Massachusetts, demonstrated a similar trend. This identified houses within 20 feet of a park selling at \$2,675 (in 1982 dollars) more than a similar house located 2,000 feet or more away.

Community Parks

Thomas Hammer, Robert Coughlin, and Edward T. Horn in 1974 studied property values in a Philadelphia neighborhood. This study focused on the 1,300-acre Pennypack Park. Approximately a third of the property value was attributed to proximity to the park when the plot was located within 40 feet of the park. With increased distance the percentage of property value affected by park proximity was reduced. Residences 1,000 feet from the park experience 9% increase in value. At 2,500 feet it is further reduces to 4.5% of property value.

Andrew Miller discussed a wide range of parks and externalities. Community parks (20 to 35 acres), or those designed to serve the area of 3 to 5 neighborhood parks (10 to 15 acres) combined, can create negative externalities including traffic, delinquency, and noise. Therefore to protect nearby residential real estate values, community parks should be buffered. The park does provide amenities that are valuable to those within the service radius and therefore can provide an increase in market value if negative externalities are dealt with effectively. Those homes not immediately surrounding the park but still within walking distance can still receive positive benefit.

Larger recreational parks are best suited for large neighborhoods. Large neighborhoods can support the costs of a large park and have sufficient demand for the facility. Sufficient demand is important because it limits the number of people coming from outside the neighborhood to use the park, which will positively affect values.

Crompton found the case of community sized parks positive externalities are likely to extend out to 2000 feet. While it is suggested that parks have a larger catchment area than 2000 feet, it becomes difficult to quantify positive effects because of the additional variables involved at farther distances.

State and National Parks

Crompton in his overview of park studies found that the benefits of parks are not limited to smaller neighborhood and community parks. Several studies in the 1960s were groundbreaking because they changed the understanding of large national and state parks. Previously, large state and national parks were thought to decrease the property tax base of surrounding communities. These studies showed that even rural parks have a positive economic impact.

Golf Courses as Open Space

Andrew Miller notes an interesting comparison to parks and real estate is the golf course community phenomenon. People that live near golf courses generally pay 25% more than those living in a similar home not abutting a golf course. This is particularly interesting because 80% of the people living in golf course communities do not participate in the sport. This indicates that people value the open space provided by a golf course. It may also reveal a preference to open space that is restricted to use during specific hours to a regimented activity. The perceived variability in uses of a park could actually reduce the property value boost of being near open space.

Bolitzer and Netusil performed an economic analysis of homes in the Portland area that are near forms of open space. Their study estimates the effect for homes within 1,500 feet of a golf course at \$3,400 (1990 dollars).

General Park Effects

Waddell Berry and Hoch 1993 - Their study focused on parks within each census tract. Each percent of the land within the census tract that is reserved for parks increased home values by 0.1%.

Crompton argues in a study commissioned by the National Recreation and Park Association that there are two basic ways to measure the economic value of a park. First, one can observe the impact on value of property surrounding the park. Second, there are economic benefits from visitors and businesses that create economic activity in the vicinity because of the park. The total economic impact of these two measures will be the minimum impact. For our purposes today we are interested in the impact on property values primarily, but it is valuable to keep in mind the other possible economic benefits of the park. Crompton tries to reach generalized conclusions from a wide range of earlier research.

Conventional wisdom that open space creates high opportunity costs in the form of potential property taxes from the undeveloped land has recently been exposed to challenge. Local groups have used impact analysis to determine the “public costs associated with new residential development exceed the public revenues that accrue from it. This is because people who reside in developments require services. In contrast, natural parks and open space require few public services—no roads, no schools, no sewage, no solid waste disposal, no water, and minimal fire and police protection.” For benchmarking purposes it generally costs 1.15 million in services for every 1 million received in property taxes. This suggests a focus on parks rather than residential development could actually save communities money.

Noelwah Netusil and Margot Lutzenhiser studied 193 open spaces in the Portland area that ranged from .2 to 567.8 acres. Their definition of open spaces included parks, cemeteries, and golf courses. As a group these open spaces have a significant positive impact on residences within 1,500 feet. Those parks that retained 50% or more natural vegetation led to the highest values for surrounding homes. The positive effects of natural vegetation parks are limited, because residential values are maximized when the natural parks covers several acres.

Andrew Miller discusses the historical and current economic issues surrounding parks. Most of his research centered on parks in suburban cities of North Texas. He concludes that suburban parks, especially those created by private developers have lower population density in the capture area and therefore maintenance costs are spread across fewer households. This, in addition to the more open nature of suburban communities, explains why it is more difficult to fund parks in the suburban setting than in urban areas.

New homes in suburban areas with low land values will initially have high depreciation of the physical structure. Countering this decline is the slow increase in the value of the landscape. As trees and grass mature the value of the property will increase. The value of the landscape asset is undervalued by the developer frequently because the exact future benefits are difficult to measure or convey to the buyer and therefore have little effect on the sale price of a new home. A few developers have overcome this hurdle by holding lots for future sale (once landscape has matured). Unfortunately this strategy is difficult unless land values are very low and thus is usually applied in semi-rural developments.

Early research on the cost structure of parks created guidelines for the size of parks. Unfortunately, these guidelines only address park acreage rather than considering the quality of the park. Economic theory suggests that the first acre of parkland is most valuable to the surrounding residences and each additional acre creates a smaller positive return than the previous acre.

The value of a park hinges on whether the park is safe, a “defensible park” according to theorists, and on whether parents must accompany children to the park. Those parks that do not require parental supervision, because they are easily observed by neighbors and do not require parental accompaniment will have the highest positive effect on residential areas. In areas well served by schools, the value of additional parks is limited because the schools provide playgrounds, parking, and grass fields for children’s recreation needs.

Implications

Neighborhood parks have a potentially positive impact on surrounding residential communities. Ideally, a neighborhood park can provide up to a 20% increase in housing values for those homes facing the park. This 20% figure is highly dependent on factors including the park visibility, park safety and maintenance, the extent of vehicular access, orientation of houses, park recreation type, and park size. Benefits from a neighborhood park can extend to approximately 600 feet, with houses nearer to the park receiving the majority of the benefit.

Community Parks also provide valuable benefits to the residential property. Those houses immediately adjacent to the park experience the negative externalities of traffic, noise, and other nuisances. Therefore the benefits to the community park are actually maximized for those within walking distance of the park, but not adjacent to the park or subject to the nuisance created by active recreation. A passive recreation style community park may provide benefits up to 33% of the residential real estate value. Homes within 1000 feet of a large community park may receive a 9% increase in home value. Positive externalities of a community park may extend up to 2000 feet. Notably, large community parks should be placed in larger neighborhoods that can absorb the recreation supplied by the park or negative externalities may lessen the positive economic impact of the park.

The economic effect of a park has significant variance because of the variation in parks and consumer tastes. While an ideal park may produce large increases in real estate value, a park that is poorly suited to a community’s needs and/or poorly maintained will not produce a large positive effect. Specific study on local recreation needs and externalities in neighborhoods would be required to properly evaluate the economic effect of any park system.

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General Limiting Conditions

Every reasonable effort has been made to ensure that the data contained in this study reflect the most accurate and timely information possible, and they are believed to be reliable. This study is based on estimates, assumptions and other information developed by Economics Research Associates from its independent research effort, general knowledge of the industry, and consultations with the client and the client's representatives. No responsibility is assumed for inaccuracies in reporting by the client, the client's agent, and representatives or any other data source used in preparing or presenting this study. No warranty or representation is made by Economics Research Associates that any of the project values or results contained in this study will actually be achieved.

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