The Impact of Parks and Open Space on Property Values and the Property Tax Base

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Published by the Division of Professional Services
NATIONAL RECREATION AND PARK ASSOCIATION
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AND THE PROPERTY TAX BASE

by

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There are two ways to measure the economic value of urban parks and open spaces. The first type of measure captures the capitalization worth of parks by measuring their impact on the value of land and property in their immediate catchment zone. The second type of measure is the economic value which residents in the urban area receive from visitors, and from businesses and retirees, whose decisions to come to the area are at least in part predicated on the availability of parks and open space. However, the use of both measures will provide only a minimum estimate of the economic value of parks and open space because the measures are not able to capture some dimensions of the benefits these amenities provide to a whole urban area. Such benefits include air cleansing, ground water storage, flood control, elimination of waste, alleviation of environmental stress and pleasing vistas.

This publication focuses on the first type of measure and addresses the economic contributions of parks and open space through their impact on property values. A previous monograph in this series reported the economic contribution made by park and recreation agencies through their role in attracting visitors.¹ A future publication will review the role of park and recreation facilities and services in encouraging businesses and retirees to relocate to a community. These other economic contributions are briefly described in Appendix 1.

The monograph reviews the principles and empirical evidence relating to the economic impact of parks, open spaces, greenways, and golf courses on property values. In the context of this publication, the economic contributions of public park land and open space derive from two premises. First, they often increase the value of proximate properties, and the resultant incremental increase in revenues that governments receive from the higher property taxes is frequently sufficient to pay the acquisition and development costs of the amenities. This view was widely articulated in the early years of the parks field, but in recent decades it appears to have disappeared from the lexicon of advocates. Few park professionals today appear to espouse it, and the author has never heard it articulated by an elected official!
The second premise is that public expenditures increase with development, because the costs to a community of servicing residential sub-divisions usually exceed the tax revenues that accrue from them. Thus, the conversion of open space to housing often results in an increased tax burden on existing residents.

Many of the sources used in this monograph were "fugitive" documents. That is, the material had not appeared in scientific journals or other mainstream publication outlets and, thus, was difficult to find and access. Much of this literature has been produced by graduate students for theses or dissertations, land trusts, park advocacy groups, or planners and consultants for the narrow purpose of making or evaluating the case for parks or open space in specific local contexts. The scientific quality of this work varies widely, but the volume of material and the remarkable consistency of findings reporting the positive impact of parks and open space on property values is sufficiently striking that concerns over methodological issues are unlikely to affect the conclusions emanating from this body of literature.

The first chapter discusses the basic principle that explains how increases in proximate property values around a park can be sufficient to pay for the park's acquisition and development. A discussion of excess condemnation, special assessment districts, and tax-increment financing districts is included since these are all financing mechanisms embracing this principle that have been used by communities to fund park developments.

In Chapters 2 and 3, the empirical evidence that validates the principles described in Chapter 1 is reviewed. The early studies presented in Chapter 2 are likely to be considered "naïve" today, because they did not use the statistical tools available to more contemporary researchers. Nevertheless, they constitute part of the body of knowledge in this area. They also document the rich historical pedigree and tradition of the principle, and its effectiveness in persuading decision-makers to invest in parks. The later studies reviewed in Chapter 3 tend to use more sophisticated research designs and statistical techniques to control for variables other than park land and open space that may influence property values, which enhances the credibility and acceptance of their findings.

A corollary proposition to the positive impact of parks on property values is that the net cost to a community of maintaining and servicing parks and open space is less than the net cost of maintaining and servicing residential real estate development. This corollary is considered in Chapter 4 which reviews the principles of fiscal impact analysis and summarizes the results from approximately 60 of them. The chapter consistently documents the negative fiscal impacts incurred by a community when open space or potential parkland is usurped for residential development and provides strong evidence of support for the corollary.

The evidence relating to developments proximate to greenway trails is reviewed in Chapter 5. There was some evidence that greenway trails had a positive impact on the saleability and value of proximate property, but the dominant sentiment was ambivalence indicating they had no impact on these issues.

The discussion in Chapter 6 indicates developers incorporate golf courses into property developments because they have found that proximate lot land values in a development increase sufficiently to ensure an enhanced profit margin, even after the substantial costs of acquisition and development of a golf course have been met. The high visibility and success of these golf course developments demonstrates by analogy the probable economic viability of community investments in park land and open space.

All studies that pertained to the issues discussed in the monograph are reported, irrespective of their conclusions. An effort was made
to be comprehensive, rather than selective, and to avoid the review becoming only an advocacy treatise. Thus, results from all studies that were found which do not support the case made by park and open space advocates are included. However, there were relatively few of these. While this suggests strong empirical support for advocates’ positions, it is recognized that there may be a lesser probability of research which is not supportive of these positions being reported in the literature. Unfortunately, negative findings sometimes are viewed as being unexciting and not as worthy of publication as positive findings.

This publication was commissioned by the National Recreation and Park Association with funding provided by the National Recreation Foundation. It is a component of the National Recreation and Park Association’s commitment to documenting the scientific knowledge base pertaining to the contribution made by park and recreation services and amenities to a community’s economic development.

The impact on proximate property of oceans, lakes or rivers, or changes in the water quality of these bodies, was defined as being outside the scope of this monograph and is not reviewed in it. Nevertheless, it is recognized that results from such studies may be of interest to some readers of this publication. For this reason, a bibliography of them is included in Appendix 2.

The prime motivating force behind this publication was Ms. Terry Hershey, the redoubtable doyenne of the conservation movement in Texas. She heard me discuss these issues over a period of several years and invariably commented: “When are you going to write it all down? This is important information for those of us fighting to protect the critters, open space and parks.” Ms. Hershey is a board member of the National Recreation Foundation. When Dean Tice, the executive-director of NRPA proposed to the Recreation Foundation that this monograph be funded, she enthusiastically endorsed the proposal. So, Terry, thanks for all the pushing and support.

The author is grateful for the assistance of Ms. Jennifer Dempsey and Ms. Melissa Adams with American Farmland Trust who provided much of the material included in Chapter 4. He is also very appreciative of the assistance provided by Ms. Marguerite M. Van Dyke who typed the manuscript drafts of this publication, and Mr. Seokho Lee who prepared the illustrations and formatted the narrative.

References

The real estate market consistently demonstrates that many people are willing to pay a larger amount for a property located close to parks and open space areas than for a home that does not offer this amenity. The higher value of these residences means that their owners pay higher property taxes. In effect, this represents a “capitalization” of park land into increased property values of proximate land owners.

This process of capitalization is termed the “proximate principle.” It means that in some instances if the incremental amount of taxes paid by each property which is attributable to the presence of a nearby park is aggregated, it will be sufficient to pay the annual debt charges required to retire the bonds used to acquire and develop the park. In these circumstances, the park is obtained at no long-term cost to the jurisdiction.

In an illustrative hypothetical scenario a city council may invest $90,000 a year for 20 years (annual debt charges on a $1 million bond) to construct or renovate a park; which causes the values of properties proximate to the park to increase; leading to higher taxes paid by the proximate property owners to the council; that are sufficient to fully reimburse the $90,000 annual investment made by the council.

In most contexts where parks enhance property values, the increments of property tax which accrue go into the general fund along with all other property taxes. However, three vehicles are discussed which directly capture the incremental gains and use them to pay for park acquisition and development costs by retaining the increments in a separate account for that purpose. These vehicles are excess purchase / condemnation, special assessment districts, and tax-increment financing districts.

The proximate principle was first promulgated and empirically verified in the parks field by Frederick Law Olmsted in the context of Central Park in New York City. The documented evidence from Central Park established the proximate principle as conventional wisdom among elected officials and planners as well as park advocates in the late nineteenth and early twentieth centuries. As a result, it
was used to justify major early park investments in many U.S. cities. Other early empirical studies undertaken in two New Jersey County Park Systems also endorsed the legitimacy of the proximate principle.

In the first third of the twentieth century, developments of parkways and playgrounds were considered to be as central economic, social and political issues, as the development of parks. Hence, studies on their impacts on proximate property were also undertaken. Although these studies showed substantial gains in proximate property values associated with parkway developments, historical perspective suggests that much of the value increase was attributable to more effective and efficient access for traffic and transit, rather than to the parkways' aesthetics. Early conventional wisdom held that playgrounds were likely to depreciate land values in their vicinity, but the evidence from empirical studies in the 1920s suggested this concern was generally unfounded.

These early studies were fairly naive, reflecting the underdeveloped nature of the statistical tools and research designs available in the first third of the twentieth century. All property value increases were attributed to the proximity of a park and the potential influences of other factors were ignored, such as house age and size; lot size; distance to city center or major shopping center; and access to other amenities such as schools and health care facilities. Although historical perspective suggests the findings reported by these studies may have been exaggerated because of their design failings, they illustrate the rich historical pedigree and tradition of the proximate principle, and its effectiveness in persuading decision-makers to invest in parks.

The limitations of the early studies were much better controlled in the later empirical studies which were all undertaken after 1960, except for one pioneering pathfinding study completed in the late 1930s. These later studies were designed to address three key questions. The first question asked whether parks and open space contributed to increasing proximate property values. Results from 25 studies that investigated this issue were reviewed and in 20 of them the empirical evidence was supportive.

The support extended beyond urban areas to include properties that were proximate to large state parks, forests and open space in rural areas. The rural studies offered empirical evidence to support not only the proximate principle, but also to refute the conventional wisdom that creating large state or federal park or forest areas results in a net reduction in the value of an area's tax base.

Six of the supportive studies further investigated whether there were differences in the magnitude of impact among parks with different design features and different types of uses. The findings demonstrated that parks serving primarily active recreation areas were likely to show much smaller proximate value increases than those accommodating only passive use. However, even with the noise, nuisance and congestion emanating from active users, in most cases proximate properties tended to show increases in value when compared to properties outside a park's service zone. Impacts on proximate values were not likely to be positive in those cases where (i) a park was not well maintained; (ii) a park was not easily visible from nearby streets and, thus, provided opportunities for anti-social behavior; and (iii) the privacy of properties backing on to a linear park was compromised by park users.

Examination of the five studies that did not support the proximate principle suggested that in four of those cases the ambivalent findings may be attributed to methodological limitations.

The second question that the later empirical studies sought to answer related to the magnitude of the proximate effect. A definitive
generalizable answer is not feasible given the substantial variation in both the size, usage and design of park lands in the studies, and the disparity in the residential areas around them which were investigated. However, some point of departure based on the findings reported here is needed for decision-makers in communities who try to adapt these results to their local context. To meet this need, it is suggested that 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.

The diversity of the study contexts also makes it non-feasible to offer a generalizable definitive answer to the third question addressed by the empirical studies which concerned the distance over which the proximate impact of park land and open space extends. However, there was convincing evidence that it is likely to have substantial impact up to 500 feet and that in the case of community sized parks it is likely to extend out to 2,000 feet. Few studies tried to identify impacts beyond that distance because of the compounding complexity created by other potentially influencing variables which increases as distance from a park increases. Nevertheless, in the case of these larger parks there was evidence to suggest impact extended beyond this artificial peripheral boundary, since the catchment area from which users came usually extended beyond it.

It is often argued that in addition to acquisition and development costs, and operating and maintenance costs, there is a substantial opportunity cost associated with allocating land for public parks. Because park land is publicly owned it is exempt from property taxes. Hence, the opportunity cost is the loss of property tax income that jurisdictions would have received if the land had been developed for other purposes. The conventional wisdom which prevails among many decision-makers and taxpayers is that development is the "highest and best use" of vacant land for increasing municipal revenues. This conventional wisdom is reinforced by developers who claim their projects "pay for themselves and then some." They exhort that their developments will increase a community's tax base and thereby lower each existing resident's property tax payments.

However, in recent years some communities have commissioned fiscal impact analyses. Findings from these analyses have challenged conventional wisdom. They have consistently shown that 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.

A review of over 60 fiscal impact studies clearly indicated that preserving open space is likely to be a less expensive alternative for communities than residential development. On average, for every $1 million received in revenues from residential developments, the communities had to expend $1.15 million to service them. This suggests that if the area of land on which a development generating $1 million in revenues is located was used as a park instead, then if the park's operation and maintenance costs did not exceed $150,000 the community would financially benefit.
In the 1990s, there was an explosion of interest in developing greenways. The rationale underlying the proposition that greenway trails may positively influence property values is different from that associated with parks. Unlike parks, any added property value is not likely to come from the views of nature or open space which a property owner enjoys because in most cases, especially in urban trail contexts, there are no such vistas. Rather, any added value derives from access to the linear trail. It is a trail’s functionality or activity potential that is likely to confer added value, not the panorama of attractive open space.

The literature investigating the proximate principle in the context of greenways is sparse, but a consistent pattern emerges from it. There is broad consensus that trails have no negative impact on either the saleability of property (easier or more difficult to sell) or its value. There is a belief among some, typically between 20% and 40% of a sample, that there is a positive impact on saleability and value. However, the dominant sentiment is that the presence of a trail has no impact on these issues.

Almost 1,000 golf courses incorporated as central features of real estate developments were constructed in the U.S. in the 1990s. Developers include golf courses to increase the land values in their projects and to accelerate the absorption of real estate, i.e. to sell their lots more quickly.

Contemporary golf courses exemplify the important role of “edge” in maximizing real estate values. Traditional, almost rectangular shaped courses similar to the shape of traditional parks, have been discarded in favor of linear courses which can accommodate much more real estate frontage. Lots and houses throughout a golf-course community bring substantial premiums over comparable lots/units in non-golf developments.

The developers’ strategy mirrors that which has been advocated by supporters of public parks and open space for over a century, i.e. parks are an investment not a cost because they generate more property taxes for a city than it costs to service the annual debt charges incurred in creating the amenities. The high visibility, large number, and success of these golf course developments demonstrates by analogy to governmental stakeholders and decision-makers the viability of the proximate principle in the context of park land and open space.