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## Examining the economic impact of park facilities on neighboring residential property values

I-Hui Lin<sup>a</sup>, Changshan Wu<sup>a,\*</sup>, Christopher De Sousa<sup>b</sup>

<sup>a</sup> Department of Geography, University of Wisconsin-Milwaukee, P.O. Box 413, Milwaukee, WI 53201, USA
<sup>b</sup> School of Urban and Regional Planning, Ryerson University, 350 Victoria St., Toronto, Ontario M5B 2K3, Canada

## ABSTRACT

The economic impacts of parks on adjacent property values have been extensively studied in the literature. Studies on how individual park facilities influence property values, however, are rarely found. While park facilities are essential for providing diverse recreational opportunities, their economic impacts should also be considered when designing a park system. This study, therefore, applied hedonic regression models to examine the impacts of park facilities on neighboring residential property values within the city of Minneapolis, Minnesota, United States. The park facilities examined are divided into two categories: passive (i.e. passive recreation space, water features, and gardens) and active (i.e. children's play grounds, ball fields, tennis courts, skate park, etc.). Analysis of results suggests that park facilities for passive recreation, with the exception of urban gardens, are likely to have positive impacts on property values. Active facilities, especially skate parks and children's play areas, tend to introduce negative impacts. The impacts of facilities on property values decrease over distance zones from parks, which is consistent with the findings in the literature. Moreover, the impacts of facilities on property values vary with size, as gardens and most active facilities are more likely to be beneficial in small parks, while water features in large parks tend to increase property values.

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## Introduction

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Conservationists, urbanists, and the general public often consider parks as essential for contributing an array of social, economic, and environmental benefits to urban areas (Brabyn & Sutton, 2013; Chalkias et al., 2013; Gatrell & Jensen, 2002; Jim & Chen, 2009; Sherer, 2006). Economic benefits in particular have been viewed not only as a benefit for local economy, but also as a crucial determinant in the decision to invest in park space (Arvanitidis, Lalenis, Petrakos, & Psycharis, 2009; Cohen et al., 2007; Crompton, 1999, 2001a; Fox, 1990; Pine, 2009; Sherer, 2006; Smallwood, 1993; Taylor & Kuo, 2006; Taylor, Wiley, Kuo, & Sullivan, 1998). Among a variety of economic benefits associated with urban parks (e.g., attracting tourists and businesses/jobs, enhancing real estate values/tax base, stimulating urban revitalization), their positive impacts on proximate residential property values have proven to be significant and important on supporting park development and maintenance (Crompton, 2001b, 2005).

\* Corresponding author. Tel.: +1 414 229 4860; fax: +1 414 229 3981. *E-mail addresses*: ihuilin@uwm.edu (I.-H. Lin), cswu@uwm.edu, wuchangshan@ gmail.com (C. Wu), chris.desousa@ryerson.ca (C. De Sousa). According to the "proximate principle", home owners are likely to pay more for proximity to certain amenities such as urban parks. Therefore, the values of residential properties located within a certain distance from urban parks are likely to be higher, and such an effect would diminish as the distance from parks increases (Crompton, 2005). Evidence of the positive impact of parks on surrounding property values can be found as far back as the late 1800s in the United States and European countries and are also supported by many recent studies (Crompton, 2001b, 2005; Danzer, 1987; Woolley, 2003). The increment of property values is then suggested to enhance property tax revenue and retirement of bonds used for parkland purchases and developments, and therefore reduce the burden of and help justify investment in park development (Crompton, 2001b; Fox, 1990; Hagerty, Stevens, Allen, & More, 1982; Kitchen & Hendon, 1967; More, Stevens, & Allen, 1988).

Evidence from empirical studies suggests that the strongest impact of urban parks is usually found within 183 m (600 ft), although significant impacts can be discerned up to 610 m (2000 ft) or more (Coughlin & Kawashima, 1973; Crompton, 2001b, 2005; Espey & Owusu-Edusei, 2001; Hagerty et al., 1982; Hammer, Coughlin, & Horn, 1974). To quantitatively examine positive







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Fig. 1. Study area.

externalities (e.g., accessibility to nature, pleasing context, aesthetic view, and recreation opportunities) and negative externalities (e.g., noise and congestion from park activities and users) introduced by parks, scholars have incorporated park characteristics into hedonic models for analyzing park impacts on property values (Crompton, 2001b, 2005). Park characteristics employed in these models include attractiveness (Espey & Owusu-Edusei, 2001), overall design (passive and active) (Lutzenhiser & Netusil, 2001), types of primary usage (e.g., cemetery, golf course, community garden, greenways) (Bolitzer & Netusil, 2000; Crompton & Nicholls, 2006; Lutzenhiser & Netusil, 2001; Voicu & Been, 2008), and types of ownership (public and private) (Bolitzer & Netusil, 2000). The literature mostly suggests that parks constructed primarily for passive recreational uses are more likely to have strong and positive impacts, while parks intensively used for active recreational purposes have relatively weak or negative impacts (Bolitzer & Netusil, 2000; Crompton, 2004; Hammer et al., 1974; More et al., 1988; Weicher & Zerbst, 1973). The negative impact associated with proximity to active parks is somewhat more complicated however, because those residing a short distance from the park may benefit from it, while those living next door may be disturbed by noise, heavy use, parking, and a variety of other factors (Crompton, 2004; Kovacs, 2012). In addition, given that park size varies and may range from less than 1 acre to over a hundred acres, different effects for parks with different sizes can be assumed. Scholars have Download English Version:

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