



76th STREET PARK

Welcomes You . . .

CITY OF LOS ANGELES
RECREATION & PARKS DEPARTMENT

The Los Angeles Parks Foundation: A Study of the 50 Parks Initiative

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May 2014

ACKNOWLEDGMENTS

This study was undertaken on behalf of the Los Angeles Parks Foundation, with support from the Los Angeles City Department of Recreation and Parks and the University of Southern California's Sol Price School of Public Policy. Judith Kieffer of the Los Angeles Parks Foundation, Jennie Carreon de Lacey and Darryl Ford of Recreation and Parks, and Daniel Mazmanian of the USC Price School provided support from the project's conception to completion. Terry Cooper, T.J. McCarthy, Gary Painter, and Matthew Young of the USC Price School provided additional advice about the study's theoretical framework and methodology. Thanks go to all these people and organizations, and to the park visitors and nearby residents who shared their experiences of the parks.

A STUDY OF THE 50 PARKS INITIATIVE

EXECUTIVE SUMMARY

Los Angeles has a relatively large supply of parks and open spaces, but too many are far from the densest populated areas of the city, and therefore from low-income communities and communities of color. To address this disparity, the Los Angeles City Department of Recreation and Parks, together with the Los Angeles Parks Foundation and other partners, launched the 50 Parks Initiative to build parks in underserved neighborhoods. These parks are small, intended to be within walking distance of nearby residents, and usually equipped with playgrounds and exercise equipment. By design, they are intended to increase opportunities for physical activity and to build social capital among neighbors who may meet there, or know those who do. The 18 walkable parks completed under the Initiative by fall of 2013 were evaluated based on these two goals, and additionally considered their effects on property values and crime. To do so, park users were directly observed users at a subset of five parks, 84 users and residents were interviewed at and around the parks, and quantitative analysis was conducted. Findings include:

- These parks are in neighborhoods that are under-resourced compared to Los Angeles at large, but advantaged compared to the sites available.
- These parks are lightly used, but this use may be comparable to other Los Angeles parks on a per-acre basis.
- Women and children are primary users in these parks, in keeping with the child-focused equipment at them and their perceived safety.
- The majority of users are vigorously active (that is, more active than walking), with rates of physical activity well beyond those recorded at other, larger parks.
- Most people in and around the parks perceived them as safe, either not changing or decreasing crime in the area.
- Sales prices for single-unit homes rise with proximity to the parks, and may be higher than at nearby sites not used for park space.
- The parks provide new opportunities for casual social interactions.
- The parks may improve nearby residents' perceptions of their neighborhoods by shifting ideas about whom the community is "for."

Taken as a whole, these findings suggest marked benefits for the communities in which parks are built. This study concludes with implications for the future that may increase these benefits, and with suggestions for further research.

INTRODUCTION

Problem Statement

There is currently a lack of park space in some of the most densely populated neighborhoods in the City of Los Angeles, which has compounded equity issues with respect to health, crime, property values, and community efficacy (Los Angeles Department of Recreation and Parks, 2009). Furthermore, some of the existing parks are irregularly patrolled or poorly maintained (Los Angeles Department of Recreation and Parks, 2009). Parks in Los Angeles are inequitably

distributed, with lower-income residents and residents of color living farther from the nearest park than higher-income and white residents, and parks in Latino, black, and low-income neighborhoods more likely to become congested than those in other neighborhoods (Wolch, Wilson, & Fehrenbach, 2005; Sister, Wolch, & Wilson, 2010).

Literature Review

With unequal access to parks comes unequal access to the effects of living near them, which studies have demonstrated to be largely beneficial. These positive effects include improved health outcomes, higher property values, expanded social networks, and greater sense of community. In addition to these impacts, the effects of park proximity on crime are unclear, as existing studies have had mixed results.

Health Benefits

Several improved health outcomes associated with living near parks have been documented, including increases in physical activity and overall health, improvements to mental health, and cleaner, healthier environments. A study conducted and published in the *Journal of Epidemiology and Community Health* examined 250,782 people and ran regression analysis to determine the effects of urban green spaces on health. The results demonstrated that green spaces have positive effects on health if recreational areas are within one to three kilometers (0.62 to 1.86 miles) of residents (Groenewegen, Maas, Spreeuwenberg, Verheij, & Vries, 2006). This effect was larger for people of relatively low socioeconomic status, as well as for young children and the elderly.

Mental health is also affected by the presence of a park. In one study, proximity to visible nature (e.g., trees, hills, or parks) accounted for one-fifth of the variance in girls' self-discipline as measured by various tests (Taylor, Kuo, & Sullivan, 2002). A recent analysis of more than 10,000 people concluded that urban green space contributes to "lower mental distress and higher well-being," as measured by a diagnostic questionnaire (White, Alcock, Wheeler, & Depledge, 2013). Furthermore, urban parks promote a milder climate and cleaner air, as a result of the shade provided by trees as well as plant respiration and metabolism processes (American Planning Association, 2003). These features of green spaces work together to lower urban temperatures at night and clear toxins from the atmosphere.

Increased Property Values

The association of urban parks and open and green spaces with increased property values is well established. Studies have found different effect sizes and mediating factors, but a consistent pattern of increased property values, sales prices, and rents with proximity to parks (Brander & Koetse, 2011). A study of community gardens further found that home ownership rates rose with proximity to the gardens (Tranel & Handlin, 2006).

A study conducted in the Minneapolis-St. Paul metropolitan area demonstrates the possibility of increased property values around green spaces (Anderson & West, 2006). This study gathered data on home prices and features and analyzed how prices changed near green spaces, holding other property features constant. In dense areas, property values increased with proximity to open spaces. The study concluded that highly populated city centers, such as central business districts, have higher real estate values, on average, when closer to green spaces.

Parks may have a greater impact in underserved neighborhoods: researchers have found that property values (and implicitly, total value) rise more near green spaces in neighborhoods that are (variously) higher in crime, lower-income, or more densely populated (Anderson & West, 2006; Voicu & Been, 2008; Dehring & Dunse, 2006).

Building Community

Green spaces have been associated with community building in at least some contexts. Exposure to green space predicted neighborhood social ties and sense of community in one study of older urban residents (Kweon, Sullivan, & Wiley, 1998), and the level of vegetation in common spaces predicted neighborhood social ties in a study of public housing residents (Kuo, Sullivan, Coley, & Brunson, 1998). In addition, a study of community gardens in New York found that gardens in low-income neighborhoods were more likely than their counterparts to lead to organizing around neighborhood issues beyond the gardens themselves (Armstrong, 2000).

Crime

The impact of parks on crime is uncertain. While some studies have suggested that green space reduces crime (Kuo & Sullivan, 2001), a new study found that parks are crime magnets, at least without features to support varied activities (Groff & McCord, 2012). A Baltimore study found that at high neighborhood crime rates parks are negatively valued, detracting from property values (Troy & Grove, 2008). The possibility of parks attracting crime has been a major concern for residents the Department of Recreation and Parks and partners speak with during the siting process, and the contexts and park features that might attract or suppress crime are open for investigation.

Organizational Context

The Los Angeles Parks Foundation (LAPF) is a nonprofit organization that was created to support the mission and objectives of the City of Los Angeles Department of Recreation and Parks (LARAP). LAPF raises funds for the LARAP to improve overall park facilities, purchase property for future park sites, and help preserve historic characteristics of existing parks throughout the city.

Low-income communities in Los Angeles tend to have lower access to public parks, which is associated with various benefits to health and social life. As part of the 50 Parks Initiative, the City of Los Angeles has begun building parks in these underserved communities. Since the start of the Initiative in 2010, more than 20 parks have been built throughout the city and more than 30 additional sites have been identified and acquired, exceeding the initial goal of creating 50 new parks.

Research Objectives of This Report

This report addresses the effects of the 50 Parks Initiative in four topic areas: health, crime, property value, and community building. It will expand on what experts have already documented about parks by looking at what these effects are for the small, walkable parks that the Initiative primarily builds.

The research questions that this report addresses are:

1. What is the effect of the parks on behavior known to improve health outcomes among nearby residents? Specifically, what is the effect on the physical activity levels of park users and nearby residents?
2. What is the effect of the parks on crime on the park plots and in the surrounding areas?
3. What is the effect of the parks on property values in the surrounding areas?
4. How do the parks contribute, or fail to contribute, to community life in the surrounding neighborhoods?

METHODOLOGY

This study seeks to answer these questions by means of a mixed-methods approach, relying principally on semi-structured interviews in and around the parks and systematic observations of activity taking place in them. This qualitative research is complemented by regression analyses of quantitative data, such as home sale prices and demographics in the area, to gain a greater understanding of the communities. These two approaches mutually inform each other: the interviews provide a glimpse of the social context required for understanding the human impacts associated with our numerical results, while the regression analyses situate the interviews within a broader framework.

Direct Observation

Direct, systematic observation of park use and physical activity seeks to understand (a) how much each park is being used by residents, (b) the demographics of park users, and (c) what level of physical activity is facilitated by the park's presence.

The five parks that have been open for the longest time were observed in order to allow enough time for residents to learn that the parks were open, for any park programming to be developed and attract participants, and for the parks to generally contribute to neighborhood life. These parks are 49th Street Park, 76th Street Park, McKinley Avenue Park, Wilton Place Park, and El Sereno Arroyo Playground.

The parks that were observed have the following characteristics. El Sereno Arroyo Playground (in El Sereno, Northeast Los Angeles) is a relatively large space featuring a playground for children with slides and other equipment, as well as exercise equipment and some grassy, open space. 76th Street Park (in Vermont Knolls, South Los Angeles) is a much smaller pocket park gated by a heavy metal door; it features a small playground and exercise equipment. Smaller still is Wilton Place Park (in Koreatown, Central Los Angeles), with a single, multi-feature play apparatus for children and two pull-up bars. (Wilton Place Park is formally called Country Club Park Heritage Plaza, but referred to as Wilton Place Park throughout this report.) Finally, a combined slide and faux-treehouse for children is the principal feature of 49th Street Park, while the nearby McKinley Avenue Park contains multiple exercise stations for adults (both in South Park, South Los Angeles). All parks incorporate into their design some manner of enclosure

(gates, fences, etc.), as well as seating. Figure 1 shows 76th Street and McKinley Avenue parks: the first a typical 50 Parks Initiative pocket park, the second with exercise equipment only.

Figure 1. Two Park Sites for Qualitative Research



76th Street Park is of typical size and amenities for a 50 Parks Initiative site.



McKinley Avenue Park is an outdoor gym. 49th Street Park and its playground are a block away.

The method of observation employed was adapted from McKenzie and Cohen's System for Observing Play and Recreation in Communities (SOPARC). SOPARC is a tool for collection of the number of park users, their (apparent) genders, ages, and races/ethnicities, and their primary activities and physical activity levels. Inter-observer agreement on these characteristics has been

high, with consensus on age, race/ethnicity, and activity level all from 80% to 89% (McKenzie, Cohen, Sehgal, Williamson, & Golinelli, 2006).

Observations were conducted on two days—one weekday and one weekend day—at each park. Observation days were from February 1 to February 14, 2014, in warm weather (daily high temperatures from about 65 to 80° F). Tallies of users were conducted at 8:30 a.m., 12:30 p.m., and 3:30 p.m. During most observation periods, counts were done at the half hour and on the hour, and then averaged for that period. In total for all five parks, and with some users averaged over observation periods, 52 users were observed.

Semi-Structured Interviews

After all five parks had been observed, research team members returned to each park to conduct semi-structured interviews with park users and neighborhood residents. The interviews address residents' use of their nearby park, their perceptions of others' use of the park, and the social ties they may have developed there. The interview protocol may be found in Appendix A.

In total, 84 people were interviewed. Most of these interviews were conducted outside of the parks, at homes or on the street within two blocks of the site, and in-park interviews were also conducted. In addition to 61 interviews in English, 23 were conducted in Spanish at McKinley Avenue and 49th Street parks. Of the people approached, 66.7% were willing to be interviewed. Of the 42 people who declined, 11 said it was because they spoke limited English.

In addition to information concerning social capital, the semi-structured interviews brought to light some of the residents' personal experiences related to crime, health, and even property values. These personal accounts informed and supplemented the quantitative data, providing insight into the ways measured changes affect the lives of each community. These responses are referred to throughout this report.

Quantitative Analysis

The quantitative data analysis employed a quasi-experimental approach to assessing the impact of the 50 Parks Initiative on property values and crime rates for the neighborhoods in which the parks were built. For both of these dependent variables, the 18 walkable parks built by the Initiative by fall of 2013 were considered as the treatment group. The nearby sites that were considered but not acquired for park construction were treated as the control group. The predominant reason identified for failing to acquire a potential park site was “insufficient funding identified or secured.” Parks that were built too recently for the data to be meaningful, parks that had overlapping radii, and parks for which acceptable matches could not be found were dropped from the quantitative analysis.

The control group sites were matched with the treatment group sites based on proximity, with control sites no more than 1.5 miles away from treatment sites. If two parks shared the same nearest site, the nearer of the two was matched with that site unless doing so would create fewer total matches (for example, when the farther park had only one possible match). After matching sites, a difference-in-differences was used method to estimate the net impact of the Initiative on the dependent variables. Outcomes two years before demolition and two years after construction

were taken into consideration, as much as the data allowed, giving control group sites the same "demolition" and "construction" dates as their matches. For some parks, exact demolition dates were not available and therefore had to be estimated based on the opening date and the average time from demolition to opening.

Los Angeles Police Department (LAPD) crime reports were collected for 2009 through 2013 for the LAPD reporting districts around each site. These crime reports contained the type of crime reported—drug offenses, property crime (further divided into burglary, theft, vehicle theft, and theft from vehicles), and violent crime (further divided into homicide, rape, assault, and robbery). Property value data was collected from the Los Angeles County Assessor's Office records for 2010 through 2013, which provided property values and characteristics for buildings surrounding the parks. The U.S. Census Bureau's American Community Survey data for 2008 to 2012 was used to examine neighborhood demographics. Characteristics within a half-mile radius were interpolated based on the proportion of block groups within the radius using the geographic information systems application ArcMap.

All results were subjected to checks for robustness to test the validity of assumptions. To test the soundness of the unused sites as a comparison group, the means of observable characteristics for the two groups of sites were calculated for any major divergences (see Appendix C). To test the robustness of the models to changes in the specification of the before and after time periods, these windows were varied as much as possible, given the available data.

FINDINGS

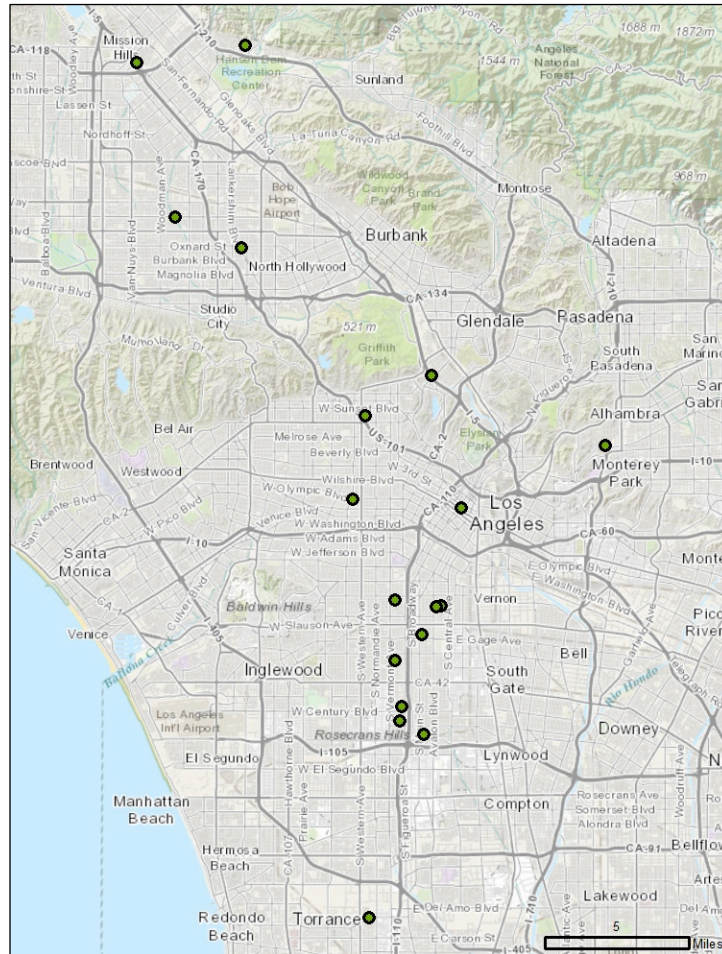
***Finding 1:** Park sites are highly heterogeneous. The parks are in under-resourced neighborhoods relative to Los Angeles at large, but are in better-resourced neighborhoods relative to the underutilized sites considered but not developed for park use.*

As of September 2013, 18 walkable parks have been completed and opened to public use (Los Angeles Department of Recreation and Parks, 2013a). Figure 2 shows the locations of the 18 parks. Using data from the Los Angeles Parks Foundation and the U.S. Census Bureau 2008–2012 American Community Survey (ACS), the block groups around the park sites were intersected with a half-mile radius in ArcMap. Appendix B provides demographic facts about the neighborhoods surrounding the 18 parks.

On average, the median household income within a half-mile radius of the parks was \$38,104, and 28.7% of the residents had incomes below the poverty line (see Table 1). More than half of the residents in the majority of the neighborhoods were Hispanic (see Appendix B). 66.0% of housing went to renters (see Table 1). The range of each demographic characteristic among the 18 park sites was wide, indicating the heterogeneity of the sites. For example, the highest median household income was \$71,887, while the lowest was \$15,549, and the percentage of residents with bachelor's degrees or higher ranged from 2.0% to 49.1%. The five sites selected for observation and interviews reflected this heterogeneity. For instance, the percentage of residents living in poverty around Wilton Place Park (29%) was near the median for the 18 park sites, but

at 76th Street Park and McKinley Avenue Park this number was 39%—close to the maximum (41%) of the 18 park sites (see Appendix B).

Figure 2. Map of the 18 Parks



Source: Esri's World Topographic Map

A comparison between neighborhood characteristics around the parks and in Los Angeles City showed that the parks are in relatively under-resourced neighborhoods, which is in line with the mission of the Initiative (see Table 1). The neighborhoods surrounding the 18 park sites have lower median household incomes, higher poverty rates, lower proportions of residents with bachelor's degrees or higher, and higher proportions of housing being rented. (Not all of these characteristics can be statistically proven not to result from chance, however, see the first column of p-values showing the likelihood of seeing differences as extreme due to random variation.)

Table 1. Demographic Comparisons between the Parks and the City, and between the Parks and the Unused Sites

	Parks (n=18)	Los Angeles City	<i>p</i> (two-tailed t-test)	Unused sites (n=28)	<i>p</i> (two-tailed t-test)
Population	14,516	–	–	18,417	0.0775*
Median household income (\$)	38,104	49,745	0.0057***	31,748	0.1174
Below poverty level (% residents)	28.7	21.2	0.0057***	32.7	0.1147
Under 18 years old (% residents)	26.2	23.0	0.1286	28.3	0.3737
White (% residents)	13.0	55.1	0.0000***	7.2	0.1683
Black or African American (% residents)	14.8	10.4	0.1336	20.0	0.2600
Asian (% residents)	8.3	12.7	0.1072	7.8	0.8857
Latino (% residents)	62.1	48.4	0.0098***	63.6	0.7865
With bachelor’s degree or higher (% residents 25+)	16.2	30.8	0.0000***	8.9	0.4438
Unemployed (% residents in the labor force)	12.8	11.4	0.0268**	12.9	0.9356
Renting (% households)	66.0	62.0	0.3658	74.9	0.0742*

* Statistically significant at the $p < 0.1$ level; ** $p < 0.05$ level; *** $p < 0.01$

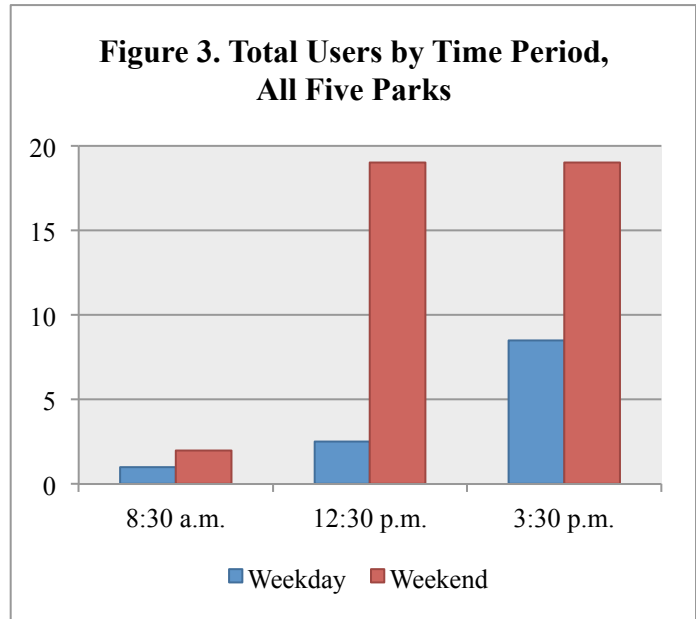
Sources: U.S. Census Bureau. 2008–2012 American Community Survey 5-Year Estimates.

Los Angeles Department of Recreation and Parks. (2013). 50 Parks Initiative Project Status 09/25/2013.

While the neighborhoods the 50 Parks Initiative is serving are under-resourced by Los Angeles's standards, when these areas are compared to all the neighborhoods with land that might have been used for parks, the park areas seem to be more advantaged. There are 28 park sites that were considered for the 50 Parks Initiative but not developed due to insufficient funding, lack of community support, or other reasons (Los Angeles Department of Recreation and Parks, 2013b). Table 1 shows the comparison between the neighborhoods surrounding the 18 completed parks and the 28 unused sites. The neighborhoods around the parks are less dense than those at the unused sites and renters occupy less housing. They also have higher incomes and lower poverty rates, although these two differences are just short of being considered non-random.

Finding 2: *The parks are lightly used and frequently empty, although this level of use may be consistent with other parks within the City of Los Angeles. Women and young children are the primary park-users.*

Two rounds of direct observations were conducted in the five parks in February of 2014. The first round was conducted on weekends, and the second round was conducted on weekdays. Park observations showed that many of these parks spend much of the time empty. 76th Street Park, the second most used of the parks observed, was empty during four of six observation periods. In part, this may be due to the season. While the weather was warm during observations, sunset was around 5:30 p.m., which may be too early for the parks to be open by the time most adults get home from work, and no observations were performed in the evening. In total, 11 of 15 weekday observation periods found the parks empty. Even on the weekends, though, the parks were empty during 7 of 15 observations. Figure 3 shows the distribution of all the park-goers across time periods.



The size and location of these parks partially explain the light level of use. Since these parks are on small lots in residential neighborhoods, they attract few users who live outside the immediate area, which is by design. The distance people are willing to travel to visit these parks seems to be directly linked to their size. At El Sereno Arroyo Playground, which at 0.82 acres is over four times the size of the next largest park observed, three of the seven people interviewed in the park came from outside the El Sereno/Alhambra area (Lincoln Heights or Highland Park). By contrast, at 76th Street Park, a nearby resident told interviewers she had met people from as far as two blocks away from the park. At the smaller parks, expecting a user base from farther than perhaps a fifth of a mile away might seem unrealistic.

In addition to affecting the distance visitors are willing to travel, the size of the park directly limits the number of people it can comfortably hold. When the size of the parks is taken into consideration, these parks are not any less used than the typical neighborhood parks in Los Angeles. Table 2 shows the range of users per acre during each park's busiest period. Meanwhile, parks scholar Anastasia Loukaitou-Sideris's 1995 study of users at Roxbury, Barnes, Will Rogers, and South Gate parks found peak user densities of 7.8 to 33.5 people per acre. While the scale of these two kinds of parks is demonstrably incomparable—with peak use at the neighborhood parks meaning hundreds, and at South Gate Park, thousands of people—the per-acre range of visitors is not too different from this study.

Table 2. Park Use During Peak Observation Periods

Park	Peak time period	Users	Users per acre
El Sereno Arroyo Playground	Saturday, 12:30 p.m.	15	18.3
76 th Street Park	Sunday, 3:30 p.m.	7	53.8
McKinley Avenue Park	Saturday, 3:30 p.m.	2	18.2
49 th Street Park	Saturday, 3:30 p.m.	2	7.9
Wilton Place Park	Thursday, 12:30 p.m.	1	6.3

Regardless of the number of people observed in the parks, interviewees more often said that the parks near them were frequently used and attracted a lot of people than that they were empty. Still, several people discussed barriers or potential barriers to park use (see Box 1).

Box 1. Barriers to Park Use

Non-users' explanations for not going to the parks and users' suggestions about what could be improved varied by park, with some broad trends. The most common response of non-users (32.1%) as to why they did not go to the park was that "it's for kids," with several others complaining about a specific or general lack of features (see below). Second to those criticisms were statements that the parks were simply too small—in some cases, too small to even be considered parks. The fencing around the parks was problematic for a few people. One respondent said he would go to the park but had "yet to see it open;" another said it was too "controlled;" and an interviewee who uses a cane said the door was too heavy for her to open. During observations at two parks with tall fences, the doors were repeatedly left propped open, suggesting that these fences might hinder use for some. Lastly, avoided deterrents to use can be seen in some of the affirmative statements by interviewees: eight mentioned a lack of crime at the park, while four said the park was well maintained or clean.

Barriers with count of interviewees

- "For kids" (9)
- Small (5)
- Lack of shade (5, El Sereno Arroyo Playground)
- Lack of bathrooms (4, El Sereno Arroyo Playground)
- Lack of features (4; 2 basketball, 76th Street Park; 2 general)
- Street characteristics—traffic, dogs (3)
- Accessibility issues (3, 76th Street Park)

The demographics of park users were roughly consistent with the demographics of the neighborhoods surrounding the parks, with two exceptions: women and children were both overrepresented in the parks (see Table 3). It is not surprising that the majority of users were children, and particularly younger children, given that playgrounds are the major features of most of these parks (of the five parks studied in detail, all except McKinley had playgrounds). Children from toddler age up to about ten years old were well represented at the parks. The predominance of women and girls comes in part from the greater frequency with which they bring children to the park, but may not be completely explained by this. There were more

teenage girls and older women in the parks than teenage boys or older men, and even at McKinley Park where park space is completely devoted to exercise equipment, women and girls visited more frequently than men and boys. The majority proportion of women and girls was fairly consistent across demographic groups and parks, with the exceptions of children (48.9% girls), black users (43.5%), visitors to 76th Street Park (30.0%), and the single user at Wilton Place Park.

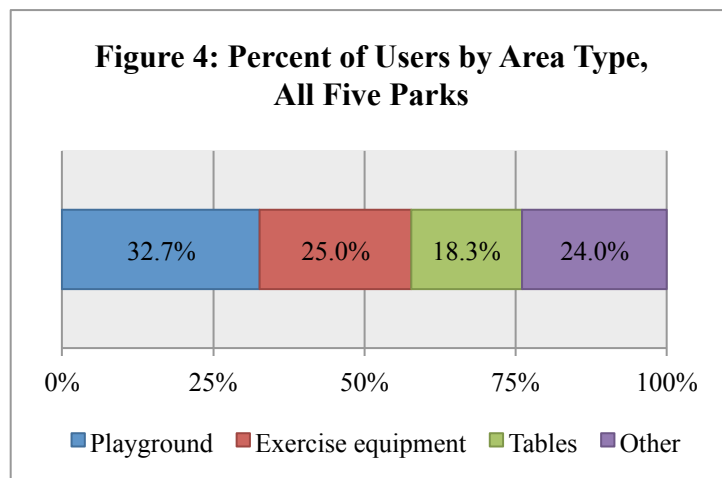
The presence of women and girls is a good sign for these parks since this is usually seen as a barometer of the quality of a public space (Whyte, 1980/2000). Generally, more men and boys than women and girls visit parks (Loukaitou-Sideris & Sideris, 2010), so this reversal of the trend is a meaningful difference. Given that women and girls are more affected by the fear of crime than men and boys, and that many interviewees commented on the safety of the parks, it may be that these parks are perceived as safer than other parks, and that women and girls therefore visit in higher proportions.

Table 3. Demographic Characteristics of All Users Observed*

	Users	Percent of users
Total	52	100.0
Women and girls	30	57.7
Men and boys	22	42.3
Children	23	43.3
Teens	10	19.2
Adults	17	32.7
Seniors	3	4.8
Latino	27	51.9
Black	12	22.1
White	5	8.7
Other race	9	16.3

* Numbers may not sum to totals due to averaging over periods and rounding

Finding 3: *The majority of park users engage in vigorous physical activity, and this activity may be at greater levels than at other parks.*



For observation, each park was divided into subareas based on its features: playgrounds, tables, exercise equipment, and other amenities (e.g., benches, grass, field). Data collected from the five parks showed that the most popular and frequently used area type for the 52 park users was the playground (32.7%), followed by exercise equipment (25.0%) and other amenities (24.0%), and tables were the least used type (18.3%; see Figure 4).

The frequent use of playgrounds was consistent with the finding that children were major park users. Since the majority of park users were using playground and exercise equipment, they were more likely to engage in vigorous

physical activity. In park observations, any pursuit more active than walking was considered "vigorous." This includes both formal exercise and playful activity such as running or jumping.

Of the 52 park users observed in the five parks during a 30-minute observation period, 55.8% were vigorously active, while 4.8% were walking, and 39.4% were sedentary (see Table 4). These levels of physical activity compare favorably to national numbers. A study observing over 35,000 users in four different states using the same system found vigorous activity levels ranging from 9.6% to 24.1% (Ward et al., 2014). In addition to physical activity in the parks, many visitors walked to the park, engaging in additional physical activity. A recent study of three Los Angeles pocket parks found that visitors walked an average of a quarter mile to get to parks (Cohen et al., 2014).

Table 4. Physical Activity Levels by Park*

	Sedentary	Walking	Vigorous	Total
49 th Street Park	2	0	1	3
76 th Street Park	3	0	7	10
El Sereno Arroyo Playground	13	3	21	36
McKinley Avenue Park	3	0	1	3
Wilton Place Park	1	0	0	1
Total	21	3	29	52
% of total	39.4	4.8	55.8	100.0

* Numbers may not sum to totals due to averaging over periods and rounding

Finding 4. *Park users and nearby residents perceived these parks as safe, either not changing or reducing crime in the area.*

Data collected from semi-structured interviews suggested that residents have mixed, but largely positive, feelings regarding the impact of the new parks with respect to crime. One park user noted that the El Sereno Arroyo Playground made the previously “gang-infested” area look “more inviting,” and others praised the secure, fenced-in, and enclosed park design (see Figure 5). As one woman put it, a park “doesn’t need to be giant—it just needs to be safe.” Though a consensus seemed to emerge that the park “makes the neighborhood safer,” a local resident begged to differ, reporting that a group of boys between the ages of 10 and 14 had harassed her daughter and followed her to her home, permanently changing her views on the park: “In the beginning I was happy and grateful, but I’m not excited anymore.”

Figure 5. Fencing Around the Park



Fencing around the playground at Wilton Place Park helps keep kids inside.

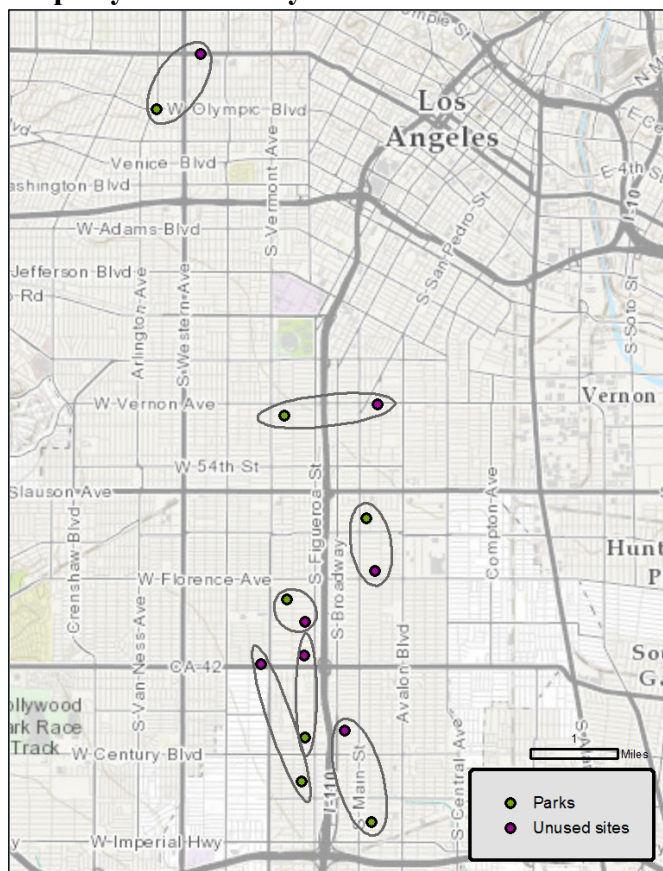
Multiple regression analyses of local crime statistics supported residents' favorable perceptions of park safety. For the 2010–2013 period, compared to LAPD Reporting Districts surrounding the unused sites, the newly built parks saw no consistent, statistically significant changes in reported crimes. Relative to changes in the volume of crimes reported at unused sites, this analysis observed the changes in crime at the 50 Parks Initiative sites. Regressions were done with both one- and two-year time frames before and after the construction period, for estimated crimes within both 0.1 and 0.05 miles of the sites. The only consistent changes were decreases in both theft from vehicles and theft of vehicles. However, neither of these effects was statistically significant. In other words, there was no statistical evidence that the new parks affected crime rates. This was true for both crimes against persons (such as assault, battery, homicide, rape, and robbery) and property crimes (such as burglary and vandalism). While consistent significant effects were not found, this may be due in part to the lack of geographical specificity of the data, which was aggregated over reporting districts. With more localized data (at the block level, for example), small effects might be found.

Residents near the 76th Street Park noticed no changes with a distinct air of relief. One man remarked that contrary to expectations, “nothing ever happened.” Another initially viewed the new park with skepticism and was concerned about the construction of a public space in a “bad neighborhood.” The man ultimately found the park to be “safer” than predicted, noting that it was “a place for [his] kids to play.” One family said that they “feel more safe” with the park there and another resident volunteered that he had seen “no gang activity” associated with the park.

Finding 5: Sales prices for single-unit residential homes are higher near the parks than farther away, and may be higher around parks than at nearby unused sites.

Sales prices for residential homes were about \$47,353 higher 0.05 miles (264 feet) away from the parks than they were the same distance away from nearby unused sites. To estimate this effect, a difference-in-differences regression analysis was conducted looking at homes within 0.15 miles of the sites that were sold two years before the demolition of the existing structure and two years after the parks were open. Only parks that had been open at least nine months by the

Figure 6. Map of Parks and Matched Sites for Property Value Analysis



Source: Esri's World Topographic Map

estimate of the increase in property values around parks then demonstrates values relative to other outcomes for those sites. Second, because sites close to the parks were used for analysis, matching accounted for the effects of broad neighborhood characteristics on sales prices (see Appendix C for neighborhood characteristics of the parks and matched sites in the base-case analysis). Figure 6 shows a map of the parks included in this analysis and their matched sites.

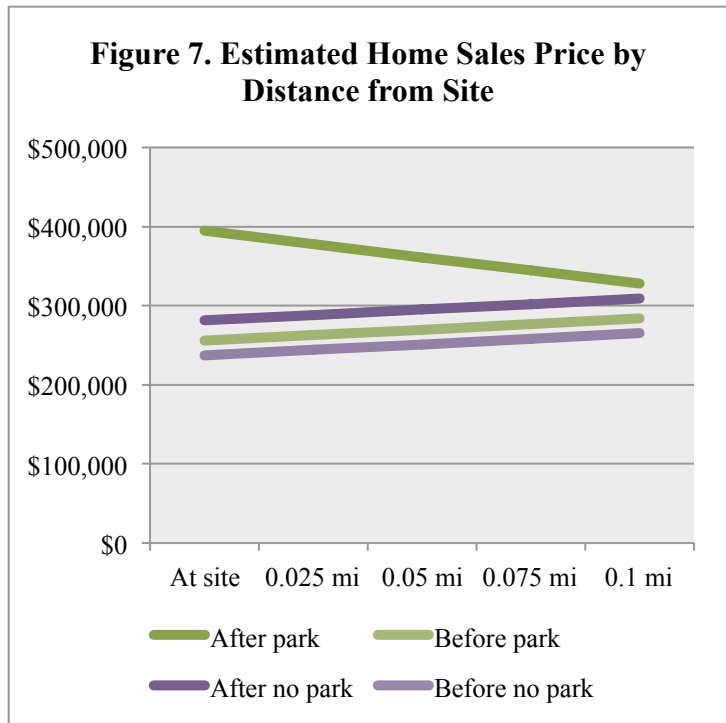
In addition to accounting for neighborhood characteristics through this matching process, sales prices were considered holding several other factors constant. These included characteristics of the property: plot size, building square footage, number of bedrooms, number of bathrooms, whether the home had been used as a rental property, and whether the home was a condominium.

end of 2013 were considered. Homes that were considered outliers, selling at the top or bottom 1% of prices, were excluded. All prices were adjusted to December 2013 dollars using the monthly consumer price index for urban users in the Los Angeles area (Bureau of Labor Statistics, 2013).

Sales around parks were compared to sales around nearby sites that were considered but not selected to become parks. This comparison was important for two reasons. First, it allowed the study to account for the fact that sites that were not used for parks might be used for something else. For example, vacant homes might be torn down and replaced, renovated, or sold to new homeowners. By comparing the parks to these other sites, the study was able to consider whether property values might increase around the underutilized plots that the 50 Parks Initiative builds on, even in the absence of park construction (see Box 2, at the end of this section, for a discussion of what happened to the unused sites.) The

The half-year in which the home was sold was also included in the analysis (see Appendix C for a detailed table of main regression results).

The results showed that after these factors were accounted for, property values increased around the new parks, and prices decreased as homes got farther away. At the same time, home sales prices around the unused sites increased with distance from the site (see Figure 7). However, the declining prices around the unused sites could not be statistically proven not to result from random variation. In all the models attempted (see Table 5), the distance that the price increase over a sale at an unused site persisted ranged from 0.07 to 0.12 miles.



To check the strength of these results, the analysis varied the time window and effective radius of the home sales considered, looking at homes within 0.1 and 0.2 miles and limiting the analysis to sales within a year of the construction period. While the results were not all statistically significant, the direction of the relationships was consistent across analyses, with sales near parks at higher prices than those around their matched sites, and lower as the distance from the park increased (see Table 5).

Table 5. Effect of Parks on Home Sales Price (December 2013 \$)

Effective radius	Number of sales	Effect of park		Effect of distance from park (by mi.)		Effect 0.05 mi. from park
		\$	<i>p</i>	\$	<i>p</i>	
<i>Sales within two years of construction period</i>						
0.1 mi.	123	75,666	0.256	-1,265,724	0.267	12,380
0.15 mi.	194	94,495*	0.090	-942,846*	0.065	47,353
0.2 mi.	334	41,250	0.292	-383,417	0.146	22,079
<i>Sales within one year of construction period</i>						
0.15 mi.	112	70,877	0.199	-1,319,916**	0.010	4,882
0.2 mi.	202	32,192	0.384	-539,364**	0.030	5,224

* Statistically significant at the $p < 0.1$ level; ** $p < 0.05$

The magnitude of the increase in sales prices varied considerably with the group of sales considered. A home sold 0.05 miles from a park might do so, on average, at a price as little as \$4,882 or as much as \$47,353 more than if the park had not been built. This broad range makes determining the size of the effect difficult, but the analysis can conclude with confidence that prices were higher with proximity to the park. This finding confirms the common wisdom captured by a resident who said he never used the nearby park, but liked it because it brought the value of his home up.

Box 2: What Happened to the Sites that Were Not Used for Parks?

Most of the 28 sites that ultimately did not become parks continue to be underutilized, according to government records. The Los Angeles County Assessor's data show two multi-family residences and one single-family home built on these sites in 2012 to 2013, and one site sold in 2013. Permits have been requested at an additional eight sites since 2010, according to city records searchable at <http://neighborhoodinfo.lacity.org>. The other 16 sites have had no known construction or permitting activity, or sales, as of April 2014. Assessor records list 16 sites as vacant.

The reasons that sites do not become parks are strong indicators of outcomes at them, at least in the short-term. All three of the sites that did not receive parks because the surrounding communities did not support them had permitting activity in recent years, and three of four plot owners who informed the LARAP their sites were unavailable either requested permits or completed construction. In contrast, of the 21 sites that did not receive parks due to insufficient funding, 15 (71.4%) have had no documented changes since their consideration.

Of the unused sites matched in the property value analysis, one had a multi-family home built on it, one has had permitting activity, and the other five have seen no formal change.

Finding 6: The parks offer new opportunities for casual social interaction.

The parks are new venues for casual social interactions, with the majority of users at each of the five parks reporting that they either met new people or ran into people they knew when they visited (in total, 36 users or 64.2%). See Table 6 for a breakdown of social interactions by park.

This park-based socializing is, to some degree, a supplement to rather than solely a redistribution of neighborhood social life. When asked where they went to do the activities they now do in the park, several people said "nowhere" or that they used the private spaces of their homes or yards previously. Of the respondents going to the park for new public activities, 63.6% (7 users) said they met new people or ran into people they knew when they did so. Even those who previously went to a different park may be newly contributing to their neighborhood social life if they are more likely to run into those they know at a closer park, as seems likely.

Interviewees often also spoke of a more general scarcity of spaces for socializing in their neighborhoods. Many people could not name an alternative public or quasi-public place or

organization that brought people together, or named one outside of the immediate neighborhood. One interviewee at 76th Street Park said it was generally difficult to get to know her neighbors because the community was a "convoluted" one, with its combination of owners and renters: it's "easy," she said, "not to know the people in the neighborhood, because people come and go."

There were two exceptions to this general rule: residents at four of the five parks (all but 76th Street Park) talked about the street or areas around people's lawns as social spaces and residents around Wilton Place Park mentioned events held by the neighborhood association. Both of these venues seem likely to foster different kinds of socializing than the parks, however. The street allows similarly casual conversation between neighbors, but likely does not, in these residential neighborhoods, do the work of literally bringing people together, and the neighborhood association events likely foster more planned and formalized interactions. For some respondents, particularly at El Sereno Arroyo Playground and at 76th Street Park, the street was considered a potentially hazardous place that one did not want to linger—and particularly in which one did not want children to play.

Table 6. Social Interactions and Social Groups in the Parks *

	Meet new people		Run into people they know		Go with family		Go alone	
	Users	%	Users	%	Users	%	Users	%
Total	23	41.8	30	61.2	41	73.2	13	23.2
El Sereno Arroyo Playground	7	36.8	8	42.1	14	73.7	2	10.5
76 th Street Park	1	11.1	7	77.8	7	77.8	1	11.1
McKinley Avenue Park	7	58.3	4	66.7	9	75.0	4	33.3
49 th Street Park	3	42.9	6	85.7	6	85.7	1	14.3
Wilton Place Park	5	62.5	5	62.5	5	55.6	5	55.6

* Percentages are for respondents who used the park and answered the question

Several respondents commented on the parks' ability to bring new people to the area—although these "new" people might have come from only a block or two away. For the purposes of contributing to neighborhood social life, small parks in dense neighborhoods may be ideal. By bringing numerous residents from within a relatively small radius together, they may be better able to allow residents to connect with their neighbors on a casual basis than larger neighborhood parks. In contrast, at El Sereno Arroyo Playground, the largest of the five parks in the least dense neighborhood, the proportion of users that run into people they know is by far the lowest at 42.1% (see Table 6).

In keeping with the equipment and users at these parks, and with Loukaitou-Sideris's observation (1995) that "[t]he children's playground is the closest thing to a melting pot a neighborhood can have," most of these social interactions centered around children (see Table 6 for the high proportion of users who go to the parks with family, usually young children). People accompanying their young family members to the park tended to strike up conversations with other parents or caregivers. Some people also mentioned the need for children themselves to

socialize. One respondent pointed out that she had a slide in her backyard, but that it was "isolated" and that her children want to meet other children. Others mentioned that the children they went to the park with knew other kids there and that through them they met new people.

Not everyone considered the parks social spaces. Some respondents valued the parks specifically for their privacy, as places to retreat to. This was particularly common at Wilton Place Park, which an interviewee described as an "oasis you can get away to," particularly because of its small size. Wilton Place Park is also the only one of the five parks that a majority of users said they would visit alone (see Table 6).

Although these parks foster new interactions among neighbors, those interactions have their limits. No evidence that socializing in these parks extended beyond their gates could be found. Indeed, many people were confused by the question about meeting new people in the parks. They had spoken to strangers, but were not sure whether to consider that "meeting" them. The model in which socializing ultimately leads to collective efficacy and civic engagement does not appear to be realized here. For example, while five respondents within two blocks of each other at El Sereno Arroyo mentioned that people drove too quickly on a nearby street and speed bumps, a stop sign, or a traffic light were needed, they were not working together to make that happen.

Wilton Place Park is unique among the five parks in that its construction itself is an expression of collective efficacy. The neighborhood association lobbied to have it built. Several residents told this story, with one citing the community's success as the reason she and her neighbors "take a lot of pride in" the park. Perhaps because of this history, Wilton Place Park is also the only park of the five that is a site for organized activity. The neighborhood association created a group called the Little Green Giants to teach children in the area about the environment (Country Club Park, n.d.). Several interviewees around the site mentioned this group.

It is important to note that just because these parks have not yet visibly led to increased social capital for their neighbors does not mean that they will not in the future. In the long-term, the combination of small social moments described in this section and changes in residents' conceptions of their neighborhoods, described in the next, may have implications beyond the parks' grounds.

Finding 7: Parks may improve nearby residents' conception of their neighborhoods by changing ideas about whom those neighborhoods are "for."

Parks help neighborhoods to project a more family-oriented identity by providing a public space for families to gather. 73.2% of interviewees said that they use the park with their families and several noted that they see many more "young families" outside since the parks were built. Since the majority of the park users are children, the park-use data give the distinct impression that families are claiming these parks as their own spaces. Although little evidence was found that ongoing adult relationships were established in the park, the interactions of children over time may help to encourage this. Children meet and play with one another in the park, and their parents begin to interact with each other through the lives of their children. It is too soon to say if

these kinds of relationships will bear fruit in the form of social capital, but it is a distinct possibility.

LIMITATIONS

Recent Construction of the Parks

With the 50 Parks Initiative beginning in 2010, all of the benefits and costs associated with the construction of these parks have not yet been realized as not enough time has passed. This was one of the biggest limitations to this study as it constrained the ability to analyze in great qualitative and especially quantitative detail the consequences of building these parks. As the years go on, long-term health, crime, property value, and social capital outcomes may be realized, which are not evident at the time of this report.

Observation Limits

Due to time constraints, only two rounds of park observations were conducted in one month of the year, limiting further exploration of the impact of season on park use. The season can affect physical activity levels and the total number of park users; one study showed the percentage of active park users tends to be higher in spring than in summer, for example (Ward et al., 2014). Season can also affect the observation results because sunset was too early in February for the parks to be open by the time most adults got home from work.

Interview Limits

There were some limitations to the interviews that were conducted in the five parks. For example, some of the homes in the community were multi-family units that were locked or had requests for no solicitation. These members of the community were not included in the study and therefore this report will not be able to gauge their particular sentiments. Another limit to the interviews were the language and cultural barriers that existed in these underserved communities. There was a sense of hesitancy, unwillingness, and possibly mistrust in the neighborhoods that was a barrier to the success of the study.

Quantitative Data Limits

There were limits to the quantitative data that was needed for the study due to the relatively recent construction of the parks as well as institutional barriers that prevented the study from a complete analysis. For example, accurate and relevant health data was not able to be collected due to privacy concerns and lack of reporting on a neighborhood level. The idea of using Los Angeles Unified School District physical fitness testing data was explored, but was deemed an incorrect and insufficient proxy for studying park user health. On the topic of crime data, due to the time limits of the project and institutional barriers within the Los Angeles Police Department, this study could not be acquire data at a level more localized than by reporting district, which hindered the ability to detect any small or more localized effects.

IMPLICATIONS FOR THE FUTURE

Community Engagement

Interviews with community members in the five parks revealed several factors that may be able to increase the success of building future parks in other communities throughout Los Angeles. The Los Angeles Department of Recreation and Parks gained valuable information from community members before the construction of the parks by setting up information tables at each of the park sites. The Department was able to gain a greater understanding of the neighborhood's sentiments, as well as the specific needs of each community. In order to expand upon this strategy, continuing and increasing community involvement before and after the construction of the parks may garner even greater results and acceptance by the community. Giving members of the neighborhood a forum in which to voice opinions and concerns on a routine basis would give the Department greater feedback for improvement or changes. Many neighborhoods have established associations or local groups that the Department might be able to take advantage of as a pre-existing resource to reach out to for advice.

Furthermore, the Department could play a greater role in providing the means for the community to take ownership of the park by guiding established groups or planning more community charrettes in the planning process. Involving leaders in the identified communities may help further this process. Community engagement can build community efficacy and capacity as well as improving park design, increasing the social benefit from the parks.

Awareness

Several of the interviewees at the various parks were not aware of the existence of the park even though they were residents living nearby. This may point to the need for increasing awareness of the park through community events or programs. One idea is to initiate community gardens in a section of the park in order to increase awareness and also engage the community in a direct and hands-on way. This would also go hand-in-hand with the idea of increasing physical activity and promoting health, and might help build social networks in the parks.

Design

The community feedback from the interviews that were conducted pointed to a lot of success in designing desirable features at the five different parks. Many community members enjoyed the facilities, exercise equipment, and the security of the installed fences. In fact, the design of these small parks with the fencing system may be a deterrent to crime and gang activity because of the inability to easily escape or the high visibility the park provides with minimal structures and trees. But the design process could be continued to serve a greater variety of age groups and people. Many of the interviewees said that they do not go to the parks because the equipment is catered to children. Some members of the community wanted a greater range of activities. The equipment provided drew a certain type of people with a certain motivation for going to these different parks, whether that was solely for exercise or for their children to play. Although not every park can cater to every type of person, it may be beneficial to conduct more in-depth research and receive feedback on what each specific neighborhood might want.

Further Research and Data Collection

There is a need for greater in-depth research and future data collection that could not be conducted at this point in time due to the relatively recent construction of the parks. In order to see and understand the different effects, future research will need to be performed. The information gleaned from this will help to gain a greater understanding of what should be changed or continued in the future.

In particular, future research could help capture the long-term health and social effects of the parks as they emerge and evolve over time. Several issues raised by this report, but ultimately outside of its scope, could also be addressed. These include the effect of rising property values on renters, changes in reported crime at a more localized level, and how park features and neighborhood contexts change the average outcome for home values, health, crime, or community life.

In the academic field, the study of walkable parks is still in its infancy. Methodologies will need to be tested over a longer period of time to understand their value in analyzing small public parks and other spaces.

CONCLUSION

The 50 Parks Initiative is still in its beginning years and its long-term effects will not be appreciated for many more years, but it has already had significant and measurable impacts. First, the parks are being used for physical exercise, which may improve the health of local residents. Second, the new parks are associated with an increase in property values for the affected neighborhoods. Third, the residents generally perceive no significant impacts on local crime. Finally, the parks are providing spaces for social interaction where no space previously existed. At this time, there is no indication that these social spaces are contributing to social capital, but may be too early to draw any conclusions from such an absence of evidence. Further research should be conducted to examine how not just parks affect these outcomes, but also how design features of parks influence the development of social capital and community identity.

REFERENCES

- American Planning Association. (2003). *City Parks Forum briefing papers: How cities use parks to... improve public health*.
<https://www.planning.org/cityparks/briefingpapers/pdf/physicalactivity.pdf>
- Anderson, S. T., & West, S. E. (2006). Open space, residential property values, and spatial context. *Regional Science and Urban Economics*, 36(6), 773–789. Retrieved from <http://dx.doi.org.libproxy.usc.edu/10.1016/j.regsciurbeco.2006.03.007>
- Armstrong, D. (2000). A survey of community gardens in upstate New York: Implications for health promotion and community development. *Health & Place*, 6, 319–327.
- Brander, L. M., & Koetse, M. J. (2011). The value of urban open space: Meta-analyses of contingent valuation and hedonic pricing results. *Journal of Environmental Management*, 92, 2763–2773.
- City of Los Angeles. (n.d.). Neighborhood info: Building and safety: Check for permits [database]. Available at <http://neighborhoodinfo.lacity.org>
- Cohen, D. A., Marsh, T., Williamson, S., Han, B., Derose K. P., Golinelli, D., & McKenzie, T. L. (2014). The potential for pocket parks to increase physical activity. *American Journal of Health Promotion*, 28(3), 19–26. <http://dx.doi.org/10.4278/ajhp.130430-QUAN-213>
- Country Club Park. (n.d.). Little Green Giants | Country Club Park.
<http://countryclubpark.org/wp/little-green-giants/>
- Dehring, C., & Dunse, N. (2006). Housing density and the effect of proximity to public open space in Aberdeen, Scotland. *Real Estate Economics*, 34(4), 553–566.
- Groenewegen, P. P., Maas, J., Spreeuwenberg, P., Verheij, R. A., & Vries, S. (2006). Green space, urbanity, and health: How strong is the relation? *Journal of Epidemiology and Community Health*, 60(7), 587–592. doi:10.1136/jech.2005.043125
- Groff, E., & McCord, E. S. (2012). The role of neighborhood parks as crime generators. *Security Journal*, 25(1), 1–24.
- Kuo, F. E., & Sullivan, W. (2001). Environment and crime in the inner city: Does vegetation reduce crime? *Environment and Behavior*, 33(3), 343–367.
<http://dx.doi.org/10.1177/0013916501333002>
- Kuo, F. E., Sullivan, W., Coley, R. L., & Brunson, L. (1998). Fertile ground for community: Inner-city neighborhood common spaces. *American Journal of Community Psychology*, 26(6), 823–851.

- Kweon, B., Sullivan, W. C., & Wiley, A. R. (1998). Green common spaces and the social integration of inner-city older adults. *Environment and Behavior*, 30(6), 832–858. <http://dx.doi.org/10.1177/001391659803000605>
- Los Angeles County Assessor's Office. (n.d.). Property assessment information system [database]. Available at <http://assessor.lacounty.gov/extranet/datamaps/pais.aspx>
- Los Angeles County Assessor's Office. (December 2013). Parcel boundary shapefile map [data file].
- Los Angeles County Assessor's Office. (2014). Secured basic file abstract (DS04) [data file].
- Los Angeles County GIS Data Portal. (2010). Law enforcement reporting districts [data file]. Retrieved from <http://egis3.lacounty.gov/dataportal/2010/10/05/law-enforcement-reporting-districts/>
- Los Angeles Department of Recreation and Parks. (2009). *2009 citywide community needs assessment*. Retrieved from <http://www.laparks.org/planning/pdf/finalReport.pdf>
- Los Angeles Department of Recreation and Parks. (2013a). 50 Parks Initiative Project Status 09/25/2013. Received via email on Oct 29, 2013 from Jennie Carreon De Lacey, City of Los Angeles Department of Recreation and Parks Planning, Construction and Maintenance Branch.
- Los Angeles Department of Recreation and Parks. (2013b). Sites Considered but Not Acquired. Received via email on November 12, 2013 from Jennie Carreon De Lacey, City of Los Angeles Department of Recreation and Parks Planning, Construction and Maintenance Branch.
- Los Angeles Police Department. (2014). Crimes by reporting district [data file].
- Loukaitou-Sideris, A. (1995). Urban form and social context: Cultural differentiation in the uses of urban parks. *Journal of Planning Education and Research*, 14, 89–102.
- Loukaitou-Sideris, A., & Sideris, A. (2010). What brings children to the park? Analysis and measurement of the variables affecting children's use of parks. *Journal of the American Planning Association*, 76(1), 89–107. <http://dx.doi.org/10.1080/01944360903418338>
- McKenzie, T. L., Cohen, D. A., Sehgal, A., Williamson, S., & Golinelli, D. (2006). System for observing play and recreation in communities (SOPARC): Reliability and feasibility measures. *Journal of Physical Activity and Health*, 3(Supplement 1): 208–222.
- Sister, C., Wolch, J., & Wilson, J. (2010). Got green? Addressing environmental justice in park provision. *GeoJournal*, 75, 229–248. <http://dx.doi.org/10.1007/s10708-009-9303-8>

- Taylor, A.F., Kuo, F.E., & Sullivan, W.C. (2002). Views of nature and self-discipline: Evidence from inner city children. *The Journal of Environmental Psychology*, 22, 49–63.
- Tranel, M., & Handlin, L. B., Jr., (2006). Metromorphosis: Documenting change. *Journal of Urban Affairs*, 28(2), 151–167.
- Troy, A., & Grove, J. M. (2008). Property values, parks, and crime: A hedonic analysis in Baltimore, MD. *Landscape and Urban Planning*, 87, 233–245.
<http://dx.doi.org/10.1016/j.landurbplan.2008.06.005>
- U.S. Bureau of Labor Statistics. (2012). Consumer price index: All urban consumers, Los Angeles-Riverside-Orange County, CA (CUURA421SA0). Available from <http://www.bls.gov/data/>
- U.S. Census Bureau. (2013a). *American Community Survey 2008-2012*. Retrieved using American FactFinder, <http://factfinder2.census.gov/>.
- U.S. Census Bureau. (2013b). TIGER/Line Shapefile (Census block group, tl_2013_06_bg). Retrieved from <http://www.census.gov/geo/maps-data/data/tiger.html>
- Voicu, I., & Been, V. (2008). The effect of community gardens on neighborhood property values. *Real Estate Economics*, 36(2), 241–283.
- Ward, P., McKenzie, T. L., Cohen, D., Evenson, K. R., Golinelli, D., Hillier, A., ... Williamson, S. (2014). Physical activity surveillance in parks using direct observation. *Preventing Chronic Disease*, 11.
- White, M. P., Alcock, I., Wheeler, B. W., & Depledge, M. H. (2013). Would you be happier living in a greener urban area? A fixed-effects analysis of panel data. *Psychological Science*, 24(6), 920–928. <http://dx.doi.org/10.1177/0956797612464659>
- Whyte, W. H. (2000). *The essential William H. Whyte*. A. La Farge (Ed.). New York, NY: Fordham UP. (Original piece published 1980)
- Wolch, J., Wilson, J. P., & Fehrenbach, J. (2005). Parks and park funding in Los Angeles: An equity-mapping analysis. *Urban Geography*, 26(1), 4–3

APPENDIX A: Interview Questions

The following are the questions that were asked during the interviews. Questions in bold were asked of every interviewee to whom they were applicable. Follow-up questions were also asked, if necessary, to get a complete response. Other questions may have been omitted based on the respondent's time available and previous responses. Words in brackets indicate that the interviewer inserted the answer to a previous question. Interviewers diverged from these questions to explore the respondents' answers as interesting and appropriate.

On Park Use

1. **How often do you go to the park?**
 - a. **Can you put a number on it, per week, month, or year?**
2. **Why do/don't you go to the park?**
 - a. **Any other reason?**
3. What about people who live with you, how often do they go to the park?
 - a. Can you put a number on it, per week, month, or year?
 - b. Why?
4. Did you live near here before they put the park in?
 - a. **If so, before the park was here, where did you go to [reasons]?**
 - b. And [people who live with you], where did they go to [reasons]?
 - i. Why did you and [people who live with you] choose those places?
 - ii. Do you/[people who live with you] still go there?
 - iii. How do those places compare to the park?
5. Aside from what you and [people who live with you] do, what else do you see people doing in the park?

On Social Interactions

6. What do you usually do in the park?
 - a. **Do you do this alone, or with others?**
 - b. If with others, who?
7. **Have you met anyone new in the park?**
 - a. **If so, about how many people?**
 - b. **How did you meet them?**
8. Have you met anyone else through [the person/people you met in the park]?
 - a. If so, how many?
 - b. How did you meet them?
9. **Do you run into people you know in the park?**
 - a. **About how often?**
 - b. **Where do you know them from?**
10. Can you think of any ways that your interactions with your neighbors have changed since the park was built?
 - a. If so, what ways?
 - b. Can you give an example?
11. Has having this park next door changed how you feel about your neighborhood?
 - a. If so, how?
12. Where else in your neighborhood does the community interact?

13. What are some of the challenges facing your neighborhood?
 - a. Have you seen any changes with respect to these challenges in the past [period since park was built]?
 - b. If so, what changes?

APPENDIX B: Characteristics of Parks and Park Neighborhoods

Table 7. Characteristics of Parks and Park Neighborhoods

Park	Acres	Residents	Median household income (\$)	Residents in poverty (%)	Under 18 (%)	White (%)	Black (%)	Asian (%)	Latino (%)	Bachelor's degree or higher (%)	Renters (% households)
49 th Street	0.19	18,658	30,331	39	34.7	1.0	10.2	0.0	88.0	2.0	71.7
61 st Street †	0.12	12,296	31,758	34	32.0	1.9	19.3	0.1	77.6	4.8	68.7
76 th Street †	0.13	16,094	26,689	39	33.6	1.0	28.7	1.4	67.4	6.3	76.7
97 th Street †	0.13	12,870	29,829	35	31.0	1.1	31.7	0.3	66.4	9.1	61.9
105 th Street †	0.11	12,579	29,352	30	32.7	1.2	36.7	0.1	60.5	11.0	55.9
111 th Place †	0.09	12,246	33,711	31	37.7	0.8	28.8	0.1	69.7	4.4	65.8
Denker and Torrance	0.15	8,184	47,014	21	27.0	14.2	8.0	19.7	52.1	20.4	60.4
El Sereno Arroyo	0.82	7,311	55,168	16	23.4	7.8	1.2	19.8	70.5	18.4	40.1
Fox and Laurel	0.38	6,765	65,438	18	28.5	5.4	1.1	3.7	87.9	11.7	38.5
Fulton Avenue	0.39	12,283	38,113	26	22.2	31.1	3.5	7.1	56.6	17.0	74.7
Kagel Canyon Street	0.14	3,155	71,887	19	23.0	24.2	18.2	6.1	50.6	25.4	20.9
La Mirada	0.17	24,759	25,975	34	19.4	28.2	4.1	9.3	56.6	18.9	93.0
McKinley Avenue	0.11	18,368	29,280	39	33.3	0.8	9.8	0.1	88.6	2.1	69.8
Orchard Ave †	0.14	17,940	25,110	38	31.2	0.5	20.7	0.3	77.6	5.4	76.5
Spring Street	0.80	14,172	15,459	41	3.3	30.7	28.9	20.0	17.0	31.3	90.2
Sunnynook River	3.40	6,293	58,522	10	13.1	48.9	1.5	19.2	25.3	49.1	62.7
Tiara Street	1.56	12,960	38,053	23	24.1	28.0	4.6	4.0	61.8	27.8	76.8
Wilton Place †	0.08	19,097	32,592	29	21.8	7.4	10.0	38.8	42.8	26.1	84.3
Maximum	3.40	24,759	71,887	41	37.7	48.9	36.7	38.8	88.6	39.1	93.0
Minimum	0.08	3,155	15,459	10	3.3	0.5	1.1	0.0	17.0	1.1	20.9
Median	0.15	12,724	32,175	31	27.7	6.4	10.1	3.9	64.1	14.3	69.2

Parks in green were sites for observations and interviews; † Sites in the base-case property value analysis

Sources: Los Angeles Department of Recreation and Parks. (2013). 50 Parks Initiative Project Status 09/25/2013.

U.S. Census Bureau. 2008–2012 American Community Survey 5-Year Estimates.

Appendix C: Supplemental Material Concerning Property Value Analysis

Finding 1 discusses the differences between the parks and their surrounding neighborhoods and those sites considered but not chosen to be parks. In regression analysis of property values, parks were matched with the nearest unused sites, reducing the differences between the two types of sites on observable characteristics (see Table 10). Particularly stark was the closing of the gap between median household incomes at the two types of sites. Differences in the racial makeup of residents were also reduced. Differences in population density and the commonness of renting persisted, although these were not statistically significant.

Table 8. Characteristics Within Half a Mile of Parks and Matched Sites for Property Value Analysis

	All parks (n=18)	All unused sites (n=28)	<i>p</i>	Matched parks (n=7)	Matched unused sites (n=7)	<i>p</i>
Population	14,054	18,417	0.1152	15,363	19,761	0.2727
Household income (\$)	38,104	32,681	0.1221	29,733	29,333	0.8252
% under 18	26.2	28.3	0.3737	31.4	32.5	0.7128
% Latino	62.1	63.6	0.7865	66.0	66.9	0.9102
% black	14.8	20.0	0.2600	25.1	23.2	0.7542
% Asian	8.3	7.8	0.8857	5.9	6.9	0.9089
% white	13.0	7.2	0.1683	2.0	2.0	0.9873
% units occupied by renters	66.0	74.9	0.0742*	70.0	75.9	0.2896

* Statistically significant at the $p < 0.1$ level in a two-tailed t-test

Source: U.S. Census Bureau. 2008–2012 American Community Survey 5-Year Estimates.

Table 11 shows the complete regression results for the main property value analysis (0.15 mile radius, two-year before and after windows). In particular, it shows the statistically insignificant but positive relationship between the distances from sites overall and sales prices. This was common to most of the models used and indicates the unused sites' depression of neighboring home values.

Table 9. Regression of the Sales Price of Single-Unit Residential Homes

	Coefficient	Standard error	<i>p</i>
Bedrooms	7,025.9	10,607.3	0.509
Bathrooms	-6,188.4	13,167.1	0.639
Plot size (sq. ft.)	26.4***	5.9	0.000
Building size (sq. ft.)	167.6***	21.7	0.000
Rental property	-7,537.2	24,257.1	0.756
Condo	-13,353.8	52,980.0	0.801
2010 †	51,718.1	42,649.6	0.227
2011, first half	-734.8	46,194.9	0.987
2011, second half	37,622.3	40,301.6	0.352
2012, first half	11,486.9	38,128.2	0.764
2013, first half	31,342.4	26,967.1	0.247
Post period	44,059.7	40,519.4	0.278
Park	18,730.8	17,495.3	0.286
Distance to site (mi.)	278,356.4	214,667.3	0.196
Post period at park	94,495.0*	55,458.4	0.090
Distance to site (mi.) in post period at park	-942,845.7*	507,728.4	0.065
Constant	-197,771.6***	45,656.2	0.000

n=193

Adjusted R-squared = 0.7430

* Statistically significant at the $p < 0.1$ level; ** $p < 0.05$; *** $p < 0.01$

† 2010 not divided into halves due to collinearity with Wilton Place Park sites (the first to open)