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# Neighborhood Park Uses by Phoenix Residents: An Exploration of Sociodemographic Differences

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## Introduction

Neighborhood parks are defined as green spaces located near people's residence. As such, they represent the most accessible and democratic fragments of "nature" in urban settings. In addition to influencing the quality of life, they may play a significant role in shaping the perceptions of nature of urban residents. In spite of this importance, neighborhood parks have received little attention from social scientists. This paper reports the result of an exploratory study that investigated the determinants of park usages in neighborhoods of different types. It argues that people's relationships with neighborhood parks are influenced by four reciprocal dimensions:

1. *Neighborhood experiences.* The influence exerted by residents' social ties and interactions with the physical markers and institutions present in a bounded territory.
2. *Residents' sociodemographic characteristics.* The influence exerted by residents' age, gender, education, income, ethnicity, family composition, occupation, and housing.
3. *Park features.* The role played by the physical and social attributes of neighborhood parks.
4. *Residents' recreational activities and landscape preferences.* The role played by the activities residents engage in in parks.

## Study objective

This study was conducted in the city of Phoenix, Arizona. Like many other modern metropolises, Phoenix is a mosaic of contrasting neighborhoods. Within the span of a few city blocks, one can observe significant shifts in populations, as well as in the natural features and infrastructural resources available to residents. This study was designed to better understand the variations of park use within and between neighborhoods socially and physically differentiated. In particular, it strived to identify which factors or variables were the most salient in explaining variations of park use.

## Methodology

Data for this study were compiled with a mailed, self-administered survey/questionnaire. The questionnaire posed 37 questions in four categories:

1. *Neighborhood familiarity and attachment.* Residents were polled about the length of time they had resided at their current address, the number of neighbors they knew by first name, the number of neighbors they considered close friends, the number of relatives living nearby, and their level of security in, and attachment to, their neighborhood.
2. *Neighborhood park use.* In addition to marking a list of 10 activities usually engaged in in parks, residents were asked how often they performed these activities, and at which time of the day/week they most often visited their park.
3. *Neighborhood park satisfaction.* Residents were asked to indicate their level of appreciation for the following features: trees and other vegetation, overall appearance, open or grassy areas, cleanliness/maintenance, safety/security, children's play equipment, playing courts and fields, park buildings, social programs and special events, and park location.
4. *Demographics.* Questions were posed about age, gender, education, income, ethnicity, the number of other household members, the age of the other household members, the type of housing, the property ownership, and the current employment status.

Roughly 2,100 households were randomly selected to participate in this study. They were located within one half-mile of six neighborhood parks. These parks were selected to fall into high-, medium-, and low-income neighborhoods (U.S. Census), to be between 4–15 acres in size, and to have relatively homogeneous neighborhoods surrounding them. The questionnaires, letters, and postcards developed for this study were sent in both English and Spanish to three neighborhoods, where 15% of the population did not speak English “at least well” (U.S. Census 2000). In the end, in June 2003, 638 questionnaires were completed.

The questionnaire answers were entered into a SPSS database spreadsheet. A frequency table and a bar chart were produced for each variable. Then, logistic regression models (stepwise procedures) were generated to distinguish which variables of the survey/questionnaire were the most highly correlated with park visits. Four sets of variables, corresponding to the four influential dimensions of park visits described above, were processed.

## Results

Overall, 70% of residents who completed the study survey/questionnaire indicated that they had visited their neighborhood park at least once during the last year. Almost half of these residents (47%, n=203) stated that they had gone to their park “a few times per year,” and the remaining group declared that they had gone “a couple of times a month” (27%, n=119), or “a couple of times a week” (22%, n=96). Only a small fraction (4%, n=17) used their park on a daily basis.

Variations in park usage appear when residents of different neighborhoods are compared. Generally speaking, residents of affluent neighborhoods are more likely to visit their park than are other residents: 76% (n=217) of those answering the survey had visited their neighborhood park at least once during the last year, compared with 62% (n=128) for the middle socioeconomic category, and 71% (n=102) for the lower socioeconomic category.

Residents of affluent neighborhoods also visit their park on a more regular basis. About 53% (n=115) of them use their neighborhood park “a couple times a week/month,” compared with 49% (n=60) for the middle socioeconomic category, and 40% (n=40) for the lower socioeconomic category. Like their parents, children in affluent neighborhoods are also regular users of their park. About 72% (n=65) of them visit it “a couple times a week/month,” compared with 61% (n=46) for children of the middle socioeconomic category, and 46% (n=34) for children of the lower socioeconomic category.

The following details which four variables were identified as the most salient predictor of park visits.

### **Neighborhood experiences**

Visiting a park is part of the experience of living in a neighborhood. This study hypothesized that the relationship that residents have developed with their park might be conditioned by their overall neighborhood experience. Results of the logistic regression model (stepwise procedure) showed that three variables measuring people’s familiarity and attachment to their neighborhood appeared to be strong predictors: length of time at current address, number of acquaintances, and neighborhood attachment.

**Length of time at current address.** The longer residents had been at their current address, the less likely they were to have visited their neighborhood park at least once during the last year ( $p=.000$ ). As detailed later, having household members 12 years of age or younger is one of the strongest predictors of park visits. The longer residents have been at their current address, the less likely it is that they have other household members in this age category.

**Number of acquaintances.** The more residents know other people in their neighborhood by first name, the more likely they are to visit their neighborhood park ( $p=.000$ ). This is especially true for residents in the higher socioeconomic category ( $p=.001$ ). Close to 60% of them know between 4 and 15 persons in the neighborhood by name, compared with 51% for the middle socioeconomic category, and 40% for the lower socioeconomic category.

**Neighborhood attachment.** The more attached residents are to their neighborhood, the more likely they have visited their park at least once during the last year ( $p=.001$ ). Residents of higher socioeconomic categories, who are the highest park users, also expressed the highest level of attachment to their neighborhood. Sixty-seven percent (n=189) of them said that they would be “sorry” or “very sorry” to leave their neighborhood, compared with 49% (n=102) for residents in the middle socioeconomic, and 45% (n=65) for residents in the lower socioeconomic category.

### **Residents’ sociodemographic characteristics**

Variables that help to delineate the sociodemographic profile of the residents are instrumental in explaining the variations of park visits. Results from the logistic regression model (stepwise procedure) showed that three of them have strong predictive power: the age of the respondent, the age of the other household members, and education.

**Age of the respondent.** Young adult residents are more likely to visit their park ( $p=.000$ ) than older residents. Roughly 85% (n=123) of those between 18 and 35 years of

age have visited their park at least once in the last year, compared with 71% (n=260) for those between 36 and 65 years of age, and 51% (n=64) for those more than 65 years of age.

**Age of the other household members.** Young residents between 18 and 35 years of age appear to be more frequent users of neighborhood parks in part due to family composition: 32% (n=86) of them have children under 13 years of age, compared with 21% (n=113) for residents between 36 and 65 years of age, and 5% (n=5) for residents over 65 years of age ( $p=.000$ ). Residents with young children are the most faithful users of neighborhood parks. This is true for all three socioeconomic categories.

**Education.** Residents having a higher level of education are also more likely than other residents to visit their park ( $p=.000$ ). As detailed later, residents with a higher level of education tend to practice “individual-oriented” activities, whereas residents with a lower level of education are inclined towards “group-oriented” activities. Individual activities, such as walking, jogging, and bicycling, are usually performed on a more regular basis than group activities, which require coordinating the participation of several residents.

### Park features

The decision to use a park is also affected by the physical and social characteristics of the site. This study polled residents about different features of their park. Results from the logistic regression models showed that three features were strong predictors of park visits: trees and other vegetation, park security, and park location.

**Trees and other vegetation.** The more residents are satisfied with parks’ trees and vegetation, the more likely they will use it on a regular basis ( $p=.007$ ). This is true for all three socioeconomic categories. Among residents who use their park “a couple of times a week,” for example, 86% (n=78) indicated that they were “satisfied” or “very satisfied” with the vegetation, compared with 74% (n=145) of those who use their park “a few times per year.”

**Park security.** The higher the comfort level, the more regularly residents tend to visit their park ( $p=.001$ ). Among those who are going to the park “a couple of times a week,” for example, 74% (n=67) indicated that they were “satisfied” or “very satisfied” with the park security, compared with 70% (n=171) for those who attend their park “a few times per year.” The relationship between park security and park visits is the most highly correlated among the lower socioeconomic category ( $p=.029$ ). Residents of this category who feel secure in their park are much more likely to visit it on a regular basis than residents of other socioeconomic categories.

**Park location.** Residents who express a higher level of satisfaction toward the placement of their neighborhood park are also more inclined to visit it ( $p=.000$ ). This is especially true for residents in the higher socioeconomic category ( $p=.004$ ). Roughly, 100% (n=51) of those who visit it “a couple times a week” are “satisfied” or “very satisfied” with its location.

### Activities taking place in parks

Finally, the experience of visiting a park is shaped by the desired recreational activities.. Table 1 shows the most popular activities for which all residents, and residents of each socioeconomic category, regularly use their parks.

Low socioeconomic Category	Middle socioeconomic category	High socioeconomic category	All respondents
Relaxing with family and friends 20% (n=45)	For individual exercise 28% (n=128)	For individual exercise 24% (n=229)	For individual exercise 24% (n=229)
For individual exercise 19% (n=43)	Relaxing with family / friends 17% (n=68)	Relaxing with family / friends 17% (n=157)	Relaxing with family / friends 15% (n=119)
Relaxing by oneself 14% (n=32)	To walk dog 17% (n=75)	To walk dog 13% (n=122)	To walk dog 11% (n=122)

Table 1. The three most popular recreation activities in parks.

The type of activities taking place in parks tend to be slightly different between residents of the different socioeconomic categories. While residents of the lower socioeconomic category use their park primarily for “group-oriented” activities (relaxing with family and friends), those in the middle and higher socioeconomic categories are more inclined toward “individual-oriented” activities (individual exercise). Residents in the lower socioeconomic category tend to recreate accompanied by their closest friends and family members, while those in the higher socioeconomic category, who have more “acquaintances” in the neighborhood, engage in more in individual activities.

## Discussion

Results showed significant variations in park attendance when residents living in different neighborhoods were compared. In addition to using a “classical” approach, which would explain these variations by the differentiations in the residents sociodemographic characteristics, this study also considered the influence of other basic variables rarely compared before: neighborhood experience, park features, and residents’ recreational activities and landscaping preferences.

With respect to sociodemographic variables, age of the respondents, age of the other household members, and education were the strongest predictors of park visitation. The fact that young residents tend to use their park more regularly than older residents is consistent with numerous studies (Payne et al. 2002). The age of the other household members as the second most influential variable of park visitation is novel, however, as most research studies do not include the age of the other household members among the sociodemographic variables computed. Therefore, they usually conclude that gender or ethnicity are the most influential variables (Hutchison 1987; Loukaitou-Sideris 1995; Oguz 2000; Gobster 2002; Payne et al. 2002). Finally, the role of education as a predictor can only be understood by considering the type of recreational activities residents engage in in parks. People with a higher level of education tend to engage in individual-oriented activities; these residents may use the park more simply because it requires less coordination with others.

In terms of park features, this study showed that residents who are highly satisfied with park vegetation, security, and location are also more regular park visitors. Security is a particularly compelling feature for residents in the lower socioeconomic category. One may also hypothesize that park location matters: parks in upper-income neighborhoods are more likely to be encircled by homogeneous single-family residences, whereas those located in the

lower-income neighborhoods are more likely to be surrounded by a mix of residential, commercial, and industrial buildings. Getting to a park in a spatially fragmented neighborhood may be more hazardous. Physical obstacles such as busy intersections, dense traffic, and vacant lots may discourage park visitation.

The experience of visiting a park can be determined by the physical markers and the institutions present nearby. It can also be affected by the relationships that residents have developed with other community members, and by the attachment residents have toward their neighborhood. Results reported in this study showed a strong correlation between park visits and social ties in the community. This finding supports the conclusions of other research studies, which found that the presence of green spaces in residential areas predicted the formation of social contacts (Whyte 1980).

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