

# Variations of landscape preferences among Phoenix residents: A socio-demographic analysis.

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## Introduction

The City of Phoenix is becoming more diversified. People of different ages, incomes and ethnicities are reshaping its social composition. These changes that are taking place in the Sonoran Desert, a fragile and complex ecosystem, pose significant challenges for recreation agencies and public managers. They must continue to meet the leisure needs of a diversifying constituency and also continue to make sound decisions about water/land use and protection. In 2003, we initiated a research project designed to better understand Phoenix' residents recreation and environmental preferences. The information derived from this study may eventually be used to enhance planning and decision making.

## Objectives

The objectives of this study were threefold:

- 1) To capture the park and yard landscaping preferences of Phoenix residents
- 2) To determine whether there exist patterns of landscape preferences for groups with different demographic attributes.
- 3) To better understand the relative importance of different demographic characteristics in explaining variations of landscape preferences.

## Methodology

The information was compiled from a survey self-administered questionnaire. Residents living within one half mile around six parks, located in three socioeconomic categories, were polled. Using a rating scale from "very important" to "unimportant", they were asked to indicate which types of landscapes they preferred for their neighborhood park and for their home yard.

- 1) Closer to nature (with native vegetation and a natural appearance)
- 2) Looking like a garden (with ornamental vegetation, well maintained, providing an aesthetic experience)
- 3) Mainly open (with large grassy areas, some trees, playing courts and fields)
- 4) With built structures (canopies for picnicking, buildings for programs, pools, patios, etc.).

Residents were also invited to check the categories that best described their age, gender, education, ethnicity, income, occupation, type of residence, homeownership, the number of other people living at home, and the age of these other occupants. In April 2003, 638 residents completed the questionnaire.

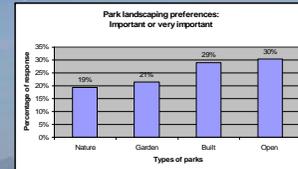
Questionnaire answers were entered into an SPSS database spreadsheet. A frequency table was first produced for each variable. Then, associations between independent variables (the socio-demographic characteristics) and dependant variables (the park and yard settings) were measured. Four logistic regression models were generated; the Cochran-Montel-Haenszel test for a linear trend, the Spearmans rank correlation coefficient correlation, the Kruskal-Wallis test, and the multinomial logistic regression. The goal was to determine which socio-demographic variables were the strongest predictors of each park and yard landscaping preferences.

## Results

### 1) Landscaping preferences for all residents

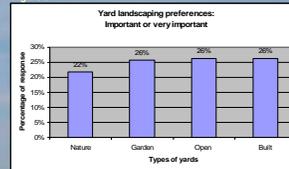
**Parks** Phoenix residents prefer a park "open" (30%) or "built" (29%). Although less popular, parks "garden" and "nature" are still the favorite of 21% and 19% of the residents respectively.

Figure 1



**Yards** There are little differences in Phoenix residents' yard landscaping preferences. Yards "garden", "open" and "built" are each considered important or very important by 26% of the population. This rate drops to 22% for a yard "nature".

Figure 2

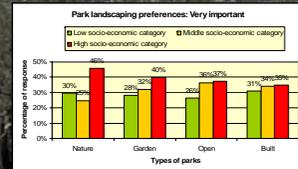


### 2) Landscaping preferences by socio-economic category\*

\*An indicator that collapsed three variables: education, income and ethnicity.

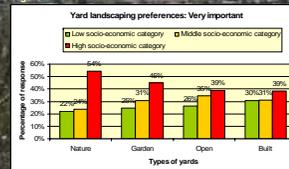
**Parks** All types of parks settings are about equally preferred by residents of the lower socio-economic category. Similarly, those in the middle socio-economic category show roughly equal preference for settings "garden" (32%), "open" (36%), or "built" (34%) but not "nature" (25%); while residents in the higher socio-economic category show a fairly strong preference for "nature" (46%) and "garden" (40%) parks.

Figure 3



**Yards** Preferences for yards vary the same way as preferences for parks (Figure 4). Residents in the lower socio-economic category like about equally all types of yards settings, with a slight preference for "built" (30%). Setting preferences for residents in the middle socio-economic category are also about the same, with the exception for "nature" (24%). Residents in the higher socio-economic category prefer either "nature" (54%) or "garden" (45%) yards.

Figure 4



## Analysis and Conclusion

This study addresses Phoenix residents' park and yards landscaping preferences. It shows that settings dedicated to recreation ("open" and "built") are more popular than those oriented on conservation ("nature" and "garden") (Figure 1). Whereas, differences are not significant with respect to yard settings (Figure 2).

When residents are broken down into socio-economic categories, those in the lower and middle category have roughly about the same park and yard landscaping preferences, except for "nature". Those in the higher socio-economic category have a higher preference for this type of landscape ("nature" and "garden").

Socio-demographic variables including gender, education, ethnicity, and age still play a significant role in explaining landscape preferences. Women and people with a low level of education for example, tend to prefer a more developed and organized environment that includes physical amenities ("with built structures") and well-maintained natural components ("looking like a garden") (Table 1, 2).

This study finally reveals the influence of other critical variables rarely examined before: the number and the age of other household members, activities engaged in parks, and types of residences. The more residents have other household members living with them and the younger these members are, for example, the more likely it is that they prefer a park and yard "mainly open". The older the family members are, the more likely they prefer a yard "closer to nature".

### 3) The socio-demographic factors that predict the park and yard landscaping preferences

**Parks** Table 1 shows the socio-demographic variables that are strongly correlated with each park landscaping preference. It includes the category of activities taking place in parks, since recreation behaviors are also considered a predictor of environmental preferences.

Table 1

Closer to nature	Looking like a garden	With built structures	Mainly open
Type of residence p=.000	Education p=.003	Education p=.000	Age of other household members p=.000
Income p=.013	Income p=.025	Age of respondents p=.012	Ethnicity p=.004
Individual active p=.000		Group passive p=.008	Group passive p=.000 Group active p=.000

The most popular park landscaping, "open", is predicted by three variables: age of the other household members, ethnicity, and the type of recreational activities one engages in. The more a resident prefers this park landscaping, the more likely he/she is Hispanic, with children of 12 years of age or younger. For family size and cultural reasons, this group engages in group-active and group-passive activities more than any other. Therefore, it finds in a park "open" the opportunities and the infrastructures suitable to recreate its family and social bonds, as well as to fulfill its recreational needs.

The least popular park landscaping, "nature", is strongly associated with three variables: type of residence, income and individual active activities. The more a resident prefers this park landscaping, the more likely he/she lives in an apartment, has a low income, and engages in individual active activities (to walk a pet, to do individual exercises, to travel through to other places, etc.). This type of landscaping represents a critical substitute for those who have no home yard, limited financial resources, and enjoy being active in natural settings.

**Yards** Table 2 displays the socio-demographic variables that are strongly correlated with each yard landscaping preference:

Table 2

Closer to nature	Looking like a garden	With built structures	Mainly open
Type of residence p=.000	Gender p=.000	Gender p=.018	Education p=.000
Age of other household members p=.003			Age of other household members p=.008

Residents who prefer a yard "closer to nature" are generally lacking a home yard. The more they feel this type of setting is important, the more likely that they live in an apartment and have other household members of 61 years of age or older.

Women express a stronger preference for developed yard settings ("garden" or "built") than men. People having other household members of 12 years of age or less, and a low level of education, tend to prefer a yard "open". This type of setting is the primary source of space for those who want their children to move around and play safely.