

# Investigating the Variations in Neighborhood Parks Use and Landscape Preferences: Preliminary Results of a Survey-Questionnaire

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## Summary

The quality of life residents experience in their neighborhoods rests upon several factors: the built and natural features, the housing characteristics, the residents' social ties, the commercial and governmental services, the community organizations, the environmental hazards, etc. These factors vary greatly in quantity and quality from neighborhood to neighborhood. This poster presents preliminary results from a self-administered survey/questionnaire, completed by 638 Phoenix households, concerning some aspects of neighborhood quality of life. This survey examined in particular the nuances of people's interactions with neighborhood parks. Residents living within one half mile around six parks, located in three different socioeconomic categories, were polled. They were invited to answer 37 questions set up in four categories:

**Neighborhood park use** These questions were designed to bring out the patterns of use in neighborhood parks. In addition to indicating activities in which they engaged, residents were asked how often they performed these activities, and at which time of the day/week they visited their park.

**Landscape preferences** These questions were designed to compare landscaping preferences for public and private spaces. Using a rating scale from "very important" to "unimportant", residents indicated which landscape they preferred for their neighborhood park and their back/front yard.

**Demographics** These questions tackled the socio-ecological factors that may explain the variations observed in the park use and landscape preferences. Residents were asked to appraise different features of their park (equipment, security, appearance, etc.), and to fill in questions delineating their socio-economic profile (age, sex, income, ethnic origin, education).

**Neighborhood familiarity and satisfaction** These questions were intended to put the park use patterns within the neighborhood's context. They explored a potential relationship between the residents' neighborhood experience and the observed patterns of park use (or non-use). Neighborhood familiarity, attributes, and allegiances were among the characteristics investigated.

Answers to these questions will help to capture the nuances of interactions of Phoenix residents with their local built and natural environment. When fully interpreted, the questionnaires' data will provide insights about the environmental and socioeconomic factors that may explain the variations observed. The results reported here are extracted from the initial phase of data analysis. They provide information about the neighborhood parks use (Figure 1), the landscape preferences for neighborhood parks (Figure 2), the overall park satisfaction (Figure 3), the park use time period (Figure 4), the landscape preferences for neighborhood parks (Figure 5), the landscape preferences for yard (figure 6).

## Methodology

**Park selection.** Six neighborhoods parks were selected among the 200 that the Phoenix Parks and Recreation Department operates. They were selected to fall into high-, medium-, and low-income neighborhoods (US Census), to be between 4-15 acres in size, and to have relatively homogeneous residential neighborhoods surrounding them.

**Household selection.** Households' addresses were obtained in four steps. First, mail route carriers within 1/2-mile of each park were identified. Second, these routes were submitted to USA Info, which provided a matching list of addresses. Third, 800 addresses were randomly selected among the approximately 9,000 on each list. Fourth, each address was processed in order to verify its appearance in the park limits. The interactive maps of the Maricopa County Tax Assessor and MapQuest were used. The first 350 residents whose address fell within the park limits were sent a questionnaire.

**Survey administration.** The final version of the questionnaire was achieved after two focus groups. In April 2003, 2,100 Phoenix residents (350 around each park) were advised by a pre-notification letter that ASU was conducting a scientific survey about the quality of life in their neighborhood. This letter was followed up with the questionnaire a week later. Three reminders (2 postcards, 1 questionnaire) were mailed to residents who didn't return the questionnaire two weeks after the requested date of return. The questionnaires, letters, and postcards were sent both in English and Spanish to three neighborhoods, where 15% of the population did not speak English "at least well" (US Census 2000). In the end, 638 questionnaires were completed, representing a level of response of 30%.

**Data analysis.** The questionnaire answers were entered into a SPSS database spreadsheet. The categorical data analysis was thereafter processed in two steps. First, a frequency table and bar chart was produced for each variable. In addition to account the number and percentage of people who gave each response, the tables helped to detect errors in data coding and data entry. The second step (under way) is designed to describe the strength of relationship between the questionnaire dependent variables and independent variables. Different measures of association will be applied: chi-square and logistic regression for the binomial dependent variables; ANOVA, linear and multiple linear regression analysis for the multinomial dependent variables.

Figure 1. Neighborhood Park Visited

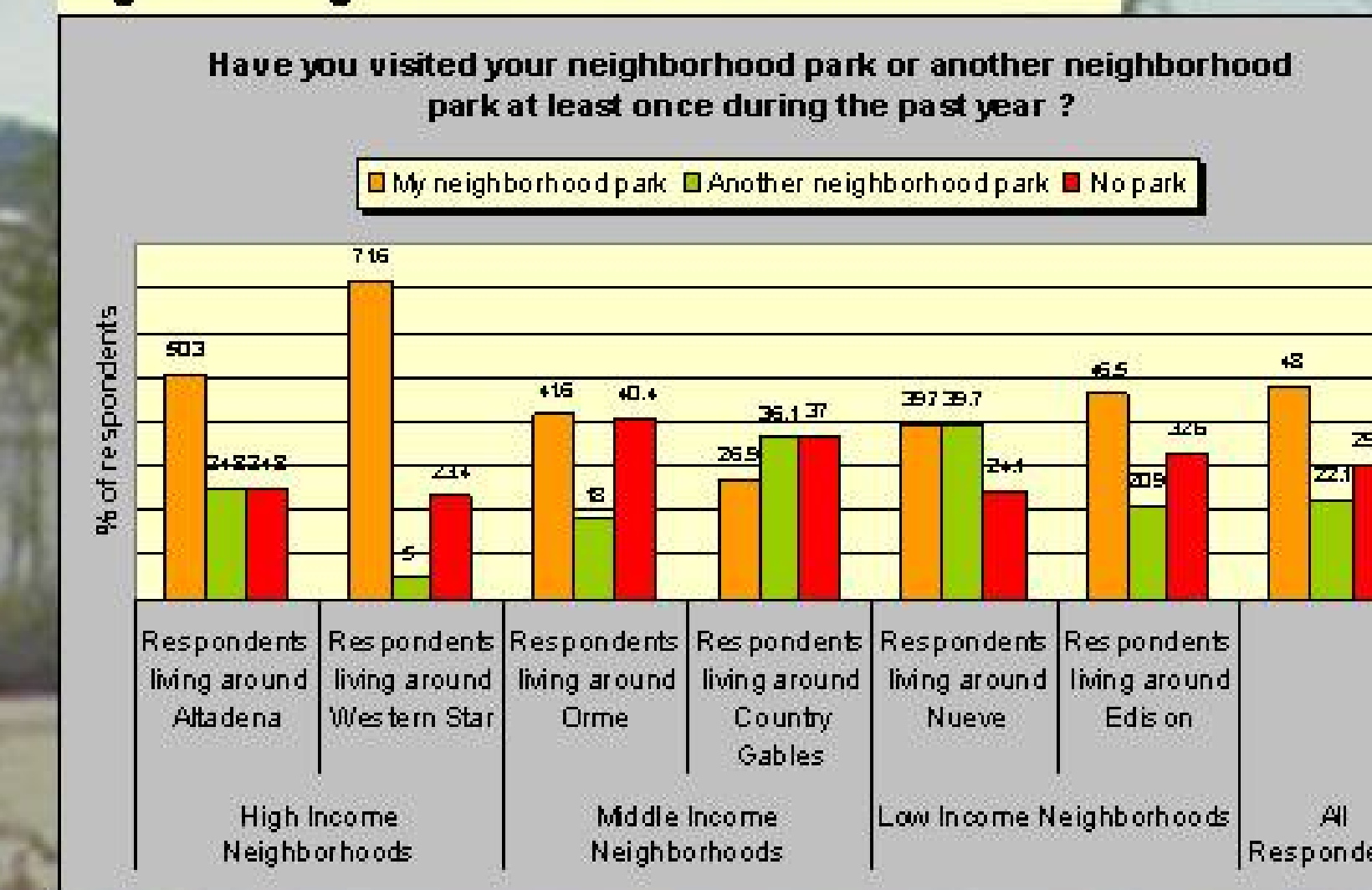


Figure 2. Frequency of Neighborhood Park Use

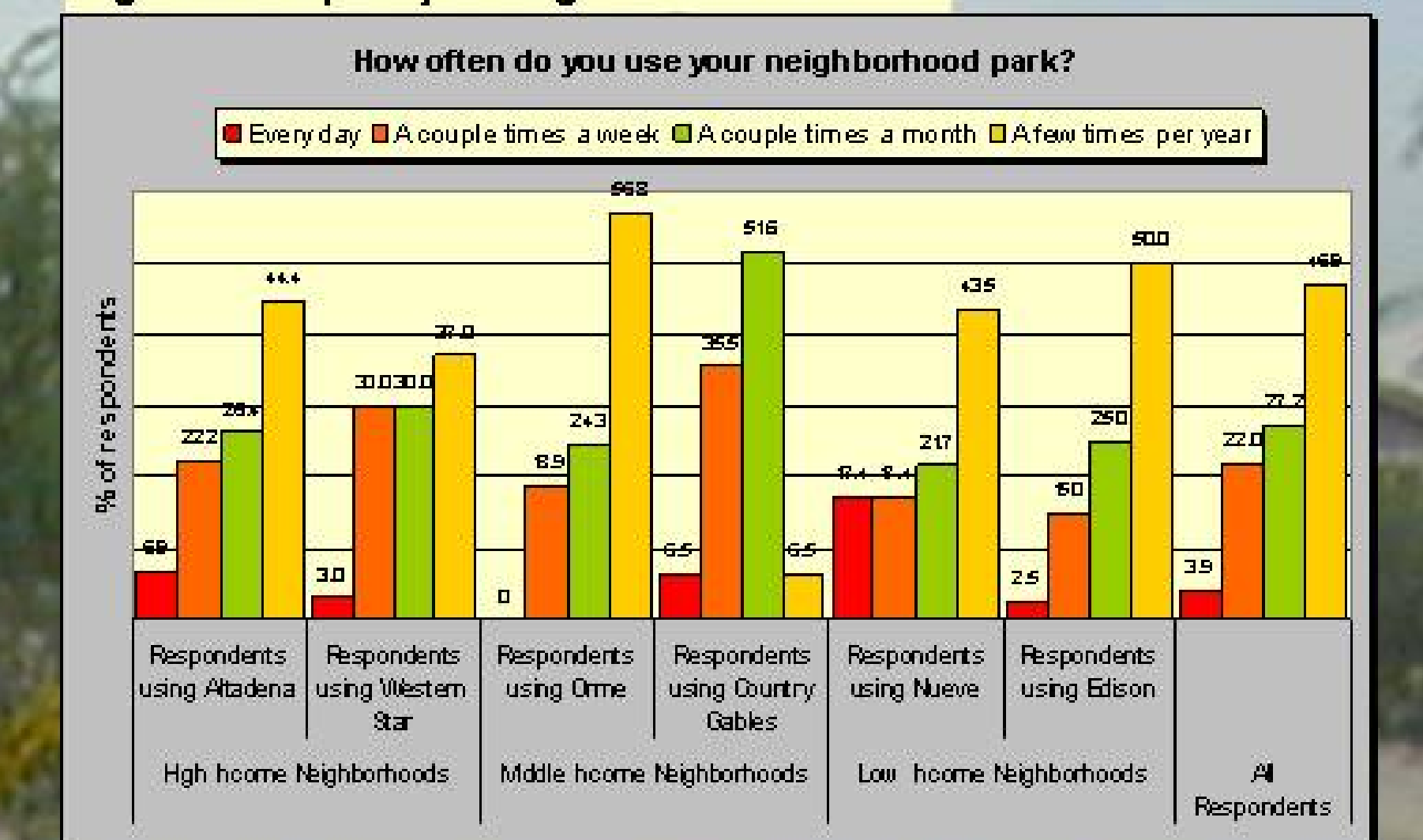


Figure 4. Park Use Time Period

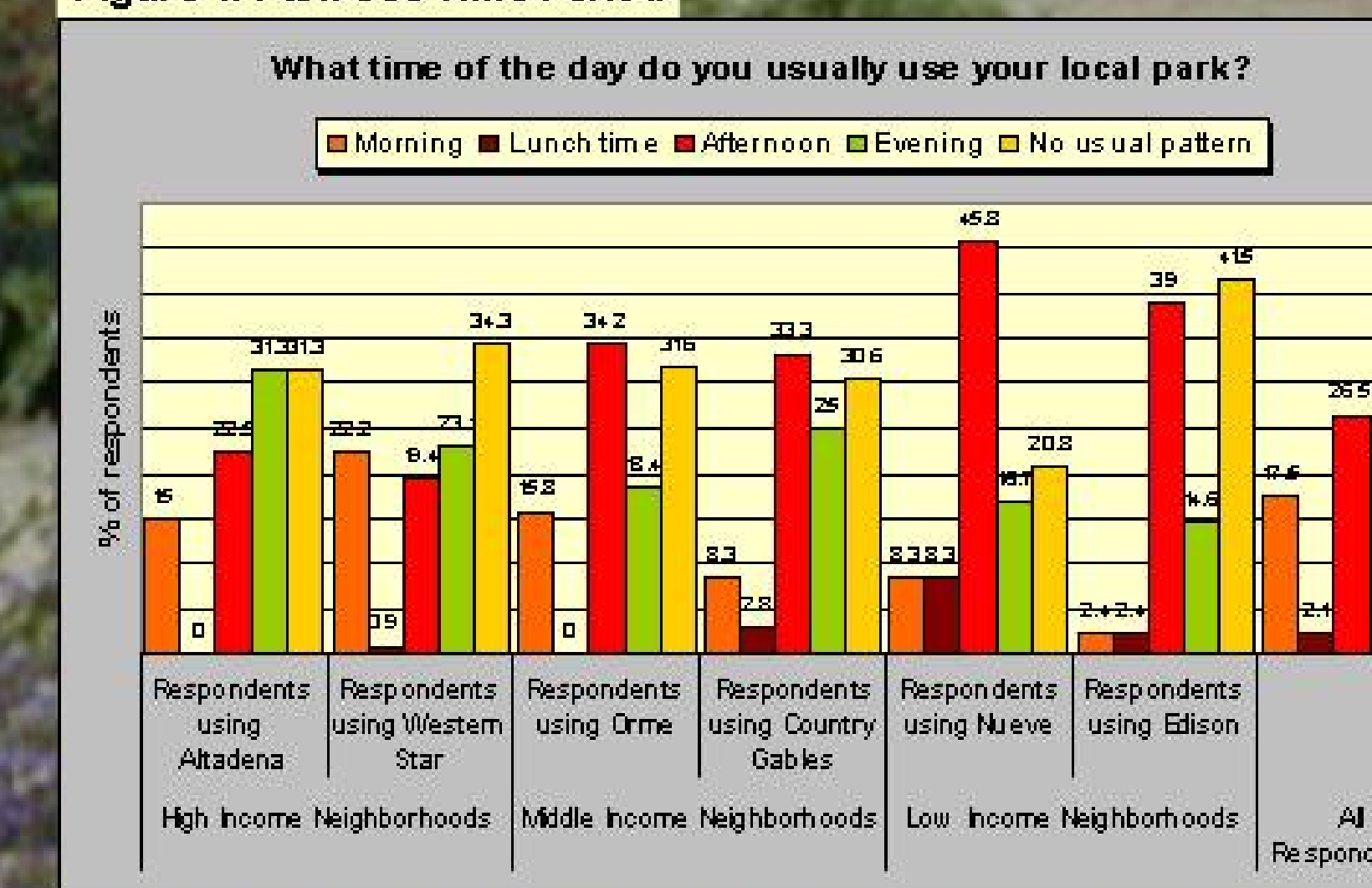


Figure 3. Overall Park Satisfaction

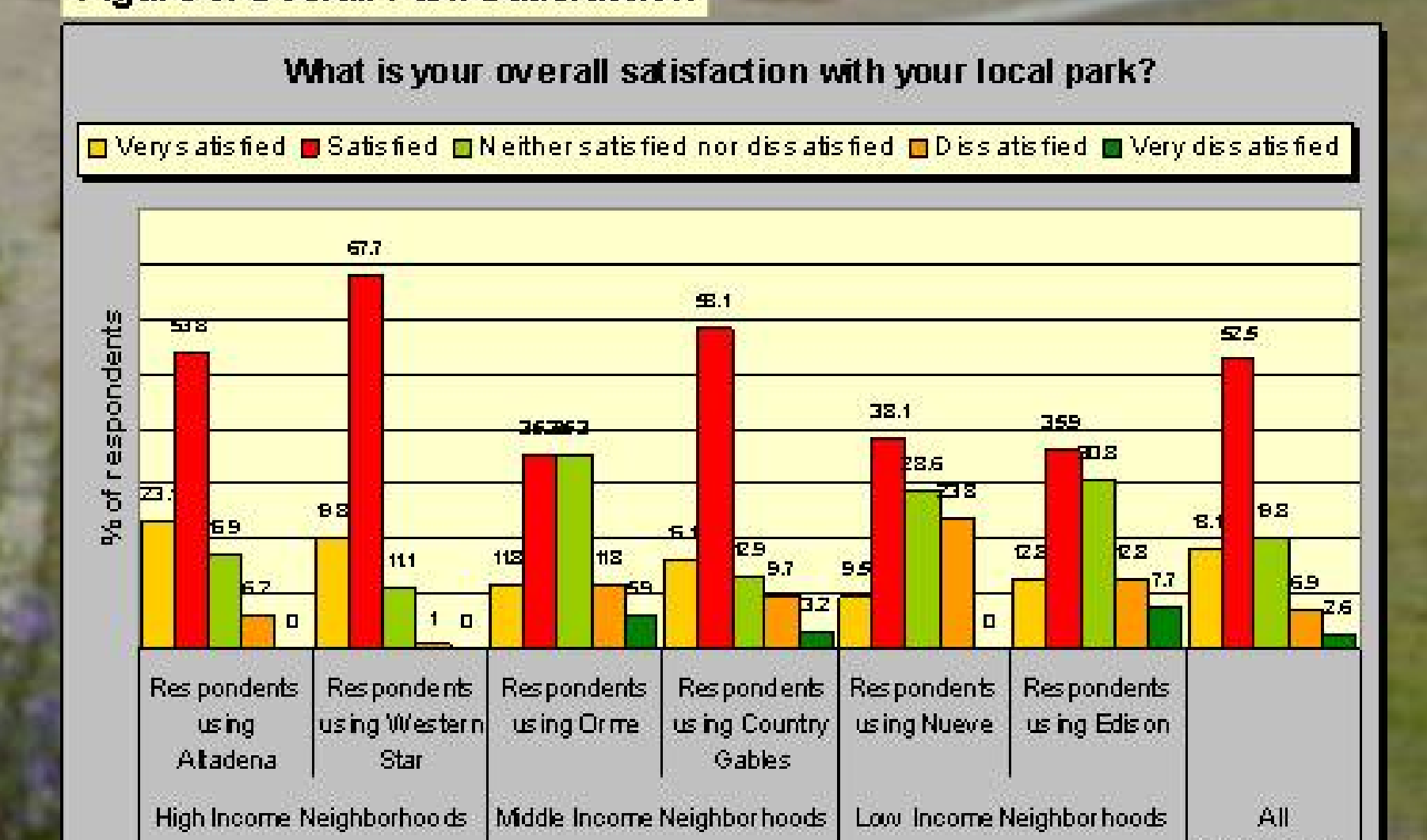


Figure 5. Landscape Preferences for Neighborhood Parks

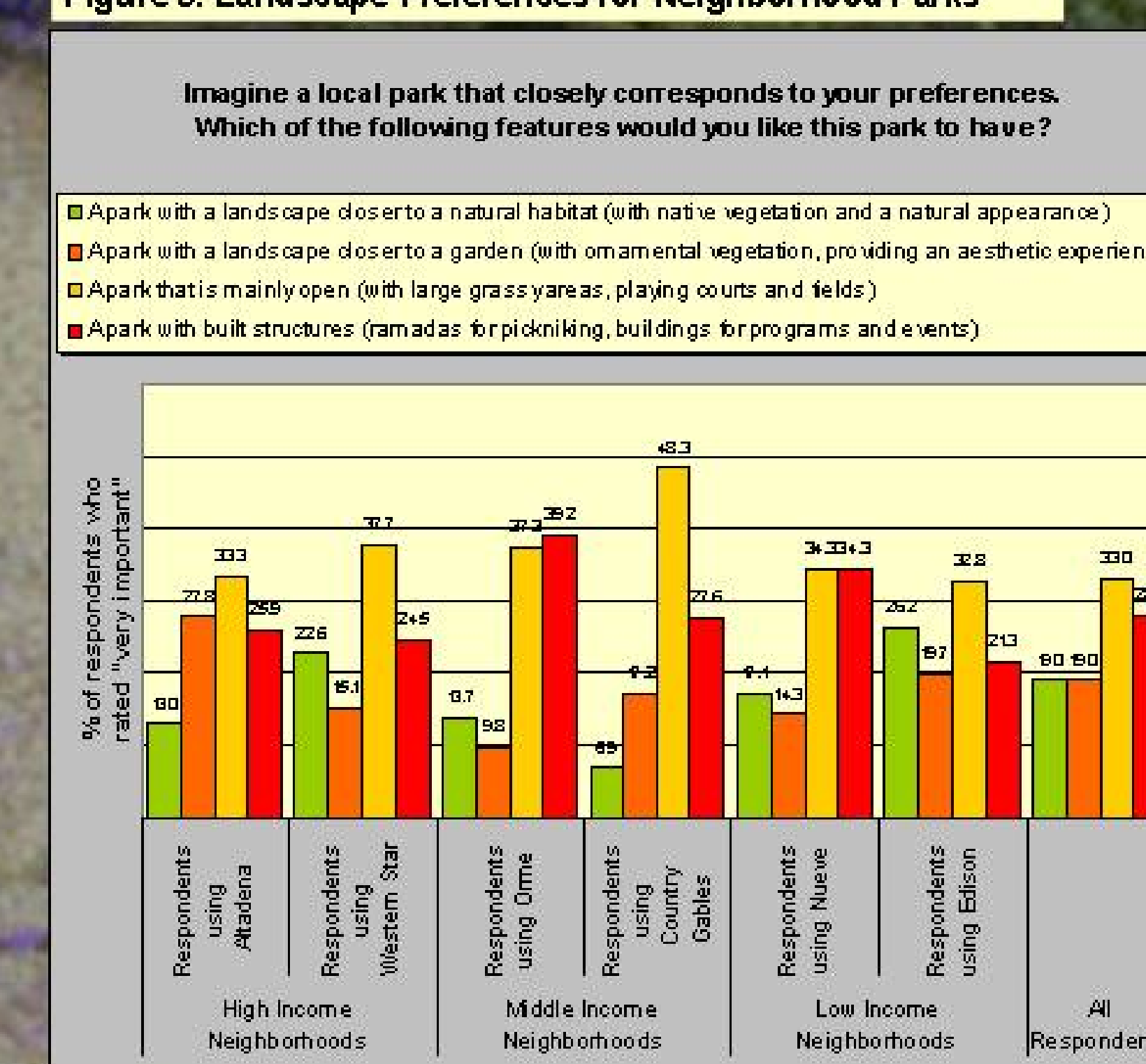
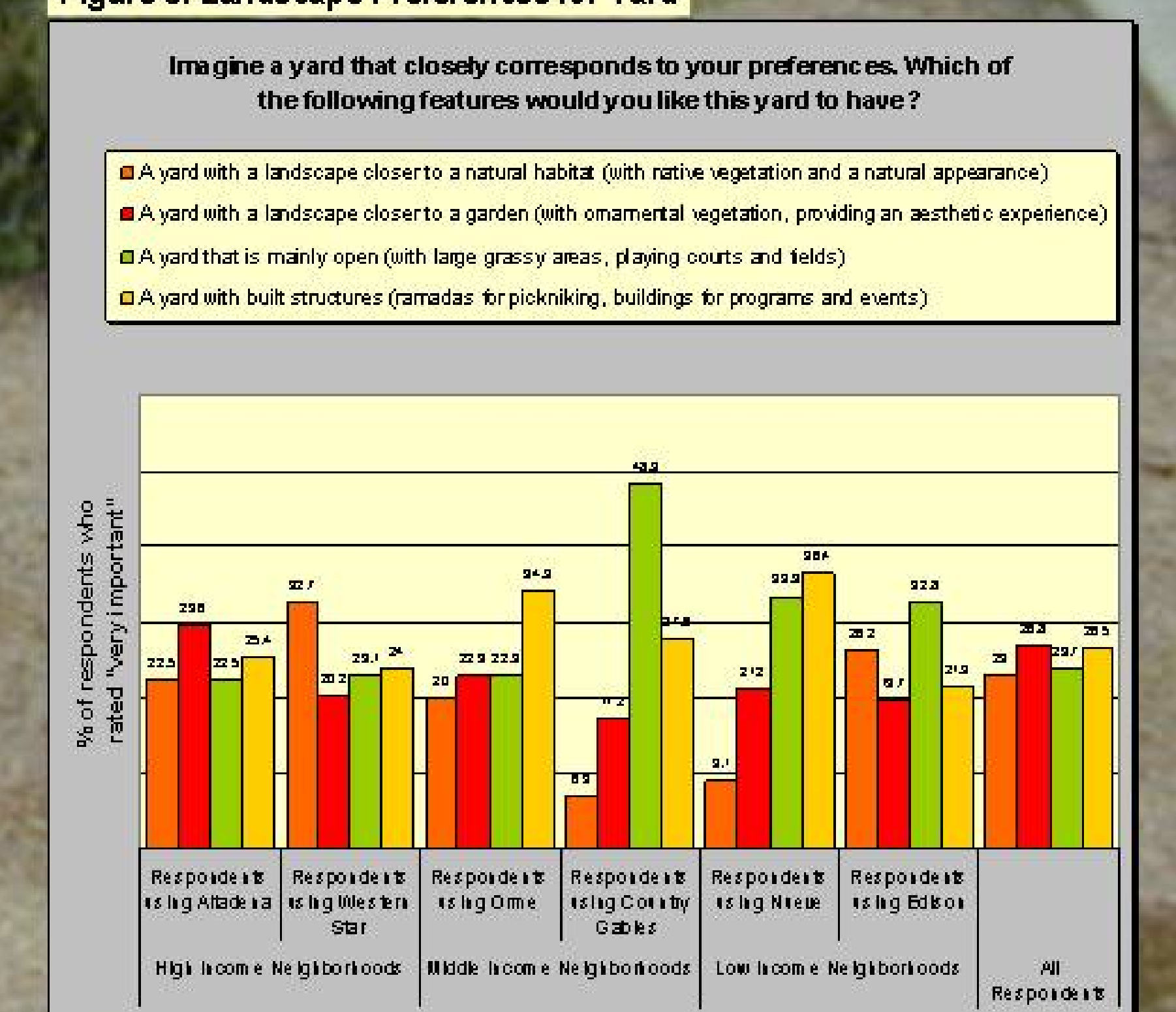


Figure 6. Landscape Preferences for Yard



## Conclusion

The figures above are examples of analysis that help to depict the patterns of parks use and landscape preferences across different neighborhoods. As shown in figure 1, residents of high-income neighborhoods tend to use their local park more than residents of other socioeconomic categories. Furthermore, they use them on a more regular basis (figure 2), and express a higher level of satisfaction with them (figure 3). Residents of low-income neighborhoods use their park more during the evening (figure 4). In term of landscape preferences, a park that is open, with large grassy areas, playing courts and fields, represents the most popular option among all respondents (figure 5). As for the front and back yard, most people prefer a landscape that is closer to a garden, with ornamental vegetation (figure 6). More analysis is required to determine the social and physical factors that may cause the variations observed. Questions analyzed in subsequent analyses will include, among others: (1) Does the number of acquaintances in the neighborhood influence the use of neighborhood park? (2) Does the satisfaction toward different park features influence the activities and the use of parks? (3) Is there a relationship between the preferences for park landscapes and yard landscape?