



# Park Management at Lord Hill Regional Park



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## Abstract

Lord Hill Regional Park, located in Snohomish, WA, is a 1,310 acre multi-use park. This park currently runs under a supplemental master plan from 1996, which has outdated maps and assessments of user groups. The two main user groups highlighted in that plan are equestrians and hikers, however mountain biking has become a popular sport at the park. Because mountain biking became popular after the implementation of the 1996 master plan, there are little specifications written about bike trails and regulations. My survey administration at Lord Hill Regional Park was intended to gather quantitative and qualitative information that the Snohomish Parks and Recreation department could use to develop an updated master plan. The results suggest that park satisfaction and sense of safety is high among all user groups. The results also suggest that roughly 30% of users have gotten lost in the park, and up to 50% have had conflict with other user groups. These data may be considered when determining the next steps for managing Lord Hill Regional Park.

## Materials and Methods

- 1 Create surveys for each user group: bikers, hikers, and equestrians. Some of the questions should be general, and others should be relating to specific groups.
- 2 Print 50 copies of each type of survey and set up a drop box where completed surveys can be returned.
- 3 Administer the surveys at the two park entrances. Make it clear questions can be left blank if desired, and that users can write as little or as much as desired. The table setup is in Figure 1.
- 4 Input the data into four Excel spreadsheets: one for general data, and three for each respective user group.
- 5 Analyze the data using a student's t-test where it is necessary, and also by calculating averages.

## Results

Table 1.1 below shows the results of the questions asked regarding safety and overall satisfaction on the trails. The responses were recorded on a 0-10 scale, zero being the “least satisfied” or “least safe,” while ten was “most satisfied” or “most safe” for each category, respectively. The numbers in the table below are the averages taken from each respective group.

	biker	equestrian	hiker
satisfaction with multi-use trails	8.7	7.9	8.4
satisfaction with hiker-only trails	7.8	7.1	9.9
satisfaction with equestrian-hiker trails	7.2	9	8
satisfaction with hiker-biker trails	8.2	6.2	7.6
satisfaction with biker-only trails	9	5	7.2
sense of safety on multi-use trails	8.8	8.2	8.3
sense of safety on hiker-only trails	8.9	8.3	8.9
sense of safety on hiker-equestrian trails	8.8	8.1	8.8
sense of safety on hiker-biker trails	8.3	5.6	7.8
sense of safety on biker-only trails	9.2	6.5	8.3

Table 1.1: The data represents the average answer from each group, on a scale from 1-10.

In terms of conflict between users, 25%, 11%, and 50% of hikers, bikers, and equestrians, respectively, indicated conflict with other groups. Data regarding signage at Lord Hill Regional Park showed that roughly 30% of park users have gotten lost at the park and roughly 40% of park users are unsure if they have used the new trails. Demographic data indicates that the average age among all users is 45 years. Roughly 60% of park users go to the park with their children, indicating that a younger population also attends the park.

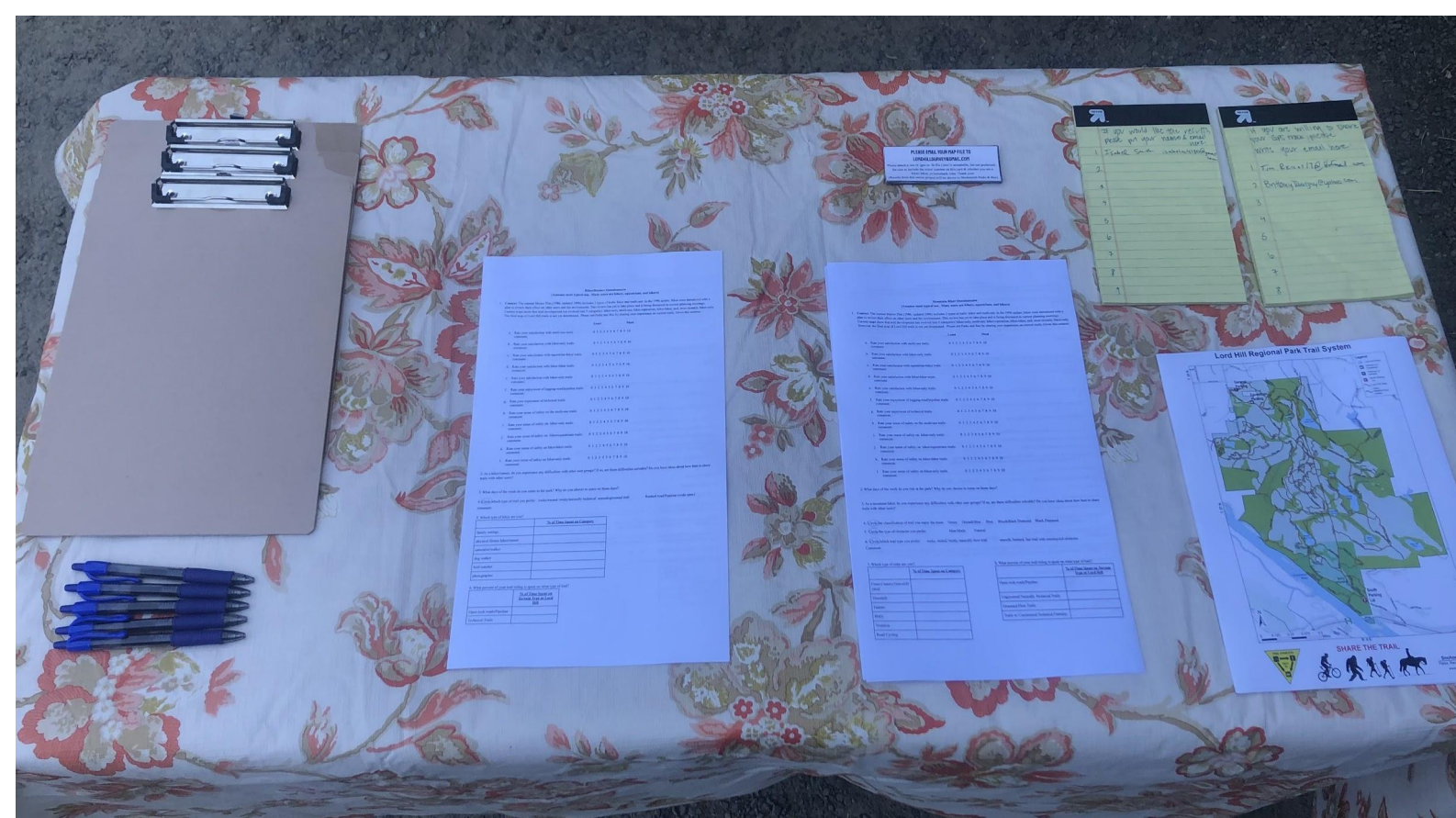


Figure 1: Table setup at the park entrance for survey administration

## Discussion

After performing a t-test on the data from Table 1.1, I found no statistically significant differences between any of the user groups. Although this data does not bring light to any specific issues, the county can see that each user group has an overall positive experience at the park. The data regarding park conflict may be useful because officials will be able to focus their attention on specific groups. Data regarding demographics can be used to evaluate which age group should have the largest influence on the master plan, especially for each respective user group. To make these data more accurate, the written responses could have been compiled and analyzed. Also, surveying for a longer period of time, and throughout different seasons, would lead to a more large and diverse sample size. In future experiments, I would need to come up with a better way to analyze the written responses and get a greater balance of hikers, equestrians, and bikers to fill out the survey.

## Conclusion

Although there were no statistically significant differences in the data in Table 1.1, the results may still be useful to the county. The demographics data, signage data, and conflict data are all likely useful to the county, as they may guide officials in creating a new master plan. I am unaware if this data will have a direct impact on the new master plan; however, the data will be beneficial for general knowledge of the park. For further research, having a larger sample size and collecting data digitally would most beneficial in helping park leaders create a new master plan that meets the needs of all user groups, while protecting the flora and fauna of the park.

## Acknowledgements & References

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Osborn Pacific Group Inc. (1996, December). *Supplemental Master Plan for Lord Hill Regional Park*. Retrieved September 16, 2021, from [https://www.snohomishcountywa.gov/DocumentCenter/View/41415/Lord\\_Hill\\_1996\\_Master\\_Plan\\_Update?bidId=](https://www.snohomishcountywa.gov/DocumentCenter/View/41415/Lord_Hill_1996_Master_Plan_Update?bidId=)