Clear Creek Trail User Survey

Perry Township, Monroe County (Indiana)

October 2007

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Methods

Participants

Participants were 487 Clear Creek Trail users, aged 18 or older, who agreed to participate in the survey. Participants were approached according to an established protocol summarized in the procedure section below. Of these 487 participants, 211 were male, 274 were female, and 2 of the surveys were left blank unintentionally for gender. A total of 466 participants reported being Caucasian American, 6 reported being Asian American, 5 reported being African American, 4 reported being Hispanic American, 1 reported being American Indian, and 5 reported being a race other than those listed on the questionnaire. The most common age ranges reported by the participants were 26 to 45 (47.02%), followed by 46 to 65 (33.47%), 18 to 25 (14.37%), and over 65 (5.13%).

Materials

Clear Creek Trail User Survey

The *Clear Creek Trail User Survey* consists of 32 mixed-format multiple choice and open-ended questions. The questions are arranged into 4 sections. The *Present Use* section consists of 16 questions concerning the participants' trail use preferences. The *Physical Activities Indicator* section consists of seven questions concerning the participants' current physical activity as it relates to the Clear Creek Trail. The *Trail Satisfaction* section consists of four questions concerning the participants' overall satisfaction with the trail. The *Demographics* section consists of six demographic questions. The complete survey questionnaire is included in Appendix A.

Refusal to Participate

The *Refusal to Participate* form consists of seven total questions that can be completed by the interviewer without input from participants who refuse to complete the survey. These questions solicit the following information: day of the month, month, time of day, location, gender, what activity the trail user is participating in at the time of refusal, and type of refusal. The complete survey is included in Appendix B.

Trail Map 1

For Questions 13, 14, and 15 on the User Survey, *Trail Map 1* was used. This map shows the road crossings, parking areas, and points of entry associated with Clear Creek Trail. The trail is numbered from 1 to 9. Participants used this map to indicate entry, turn around, and exit points along the trail to the nearest number (*see Figure 6*).

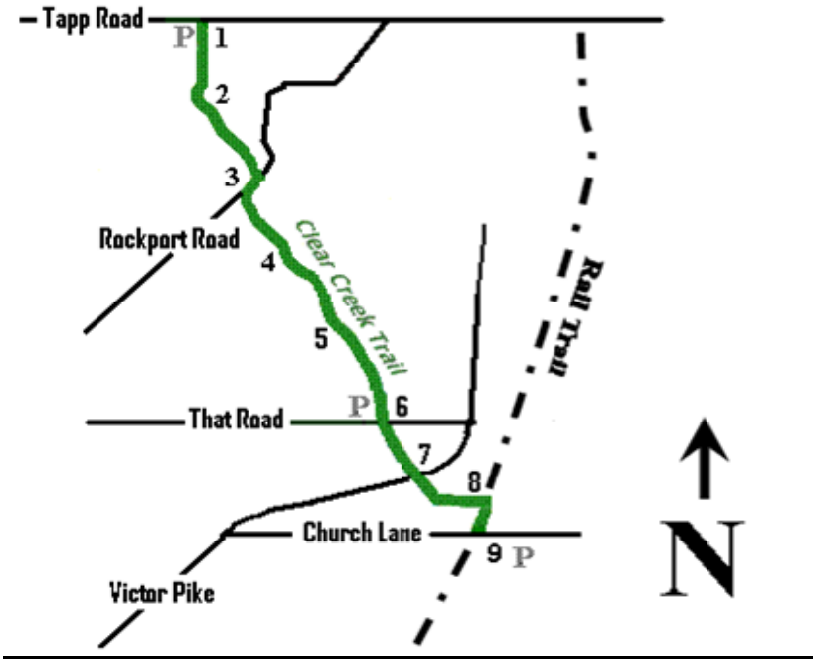

Figure 6: Trail Map 1

Trail Map 2

Trail Map 2 is a map of the townships in Monroe County and was used for Question 37 on the *User Survey*. Trail Map 2 is included in Appendix C.

Research Signs

During each research shift, three research signs, which read "IU Researcher on Trail Today," were placed along the trail according to protocol. One sign was placed in the parking area where the researcher was standing during a shift, and one sign was placed approximately 75 feet from the parking area along the trail in each direction.

Procedure

Trail shift times were chosen based on the previous year's trail use data obtained via infrared trail monitors placed along Clear Creek Trail. Based on this data, four daily trail shifts were chosen based on periods of increased trail activity. These shifts were 6:30 a.m. to 9:30 a.m., 11:30 a.m. to 2:30 p.m., 3:30 p.m. to 6:30 p.m., and 6:30 p.m. to 9:30 p.m. Microsoft Excel's random number generator was used to randomly select shifts from the total potential weekday and weekend shifts available for a calendar month. A total of seven weekly shifts, five weekday shifts, and two weekend shifts were selected for each calendar week. Each randomly selected shift time and day were then paired with a randomly selected location.

One interviewer was assigned to each of the randomly selected shifts. A total of 8 interviewers were trained and used to administer the questionnaire. Three trail entry/exit locations along Clear Creek Trail have parking areas and were selected as the areas where the interviewers would be located during the research. These locations were at Tapp Road, That Road, and Church Lane (*see Figure 6*). Interviewers were instructed to stay within the parking areas and approach only trail users entering and exiting the parking areas.

In order to eliminate potential selection bias, every 3rd trail user entering each of the parking areas during the randomly generated trail shift was approached to participate. Each group of people was counted as one trail user. The interviewer asked every 3rd person if he or she had already participated in the survey. If the 3rd person indicated that he or she had already participated, then the next trail user was approached. This process was continued through the nth person until a user who had not participated in the survey was approached. In the instances in which the 3rd through the nth person refused to participate in the in the study, the 4th through nth person was approached until a trail user who had not already participated in the study agreed to participate.

The interviewers were given the following script to use when approaching trail users to request participation:

> "I'm a researcher with Indiana University. Are you willing to spare five minutes to answer a few questions about the trail?"

For instances in which a person other than the 3rd through nth person approached the interviewer and requested participation, the following script was used:

> "Our research methods require us to randomly select participants. Unfortunately, you do not fall into this random selection, and we will not be able to use your information. We will, however, be conducting this survey over the course of the next several months, so if you are a regular trail user, you may be selected as a participant at another time."

For instances in which the 3rd through nth person was a group, the group was approached. If the group agreed to participate, then the following script was used:

> "The nature of our research design allows us to accept answers from only one person. Would you please select one member of your group who will participate?"

The Refusal to Participate form was used for all trail users who were approached and indicated that they had already participated or did not wish to participate.

The User Survey was read aloud, one question at a time, to each participant. The response choices for each question were not read to the participants. Participant responses were marked on the survey by the interviewer. All users giving multiple responses for questions requiring a single response were prompted for the response that they felt was "most often the case." For instance, it was common to receive multiple answers or a large range of answers for Question 21: "How much time to you normally spend on the trail per visit?" Participants were asked to respond with an amount that they felt was typical or average for them. In instances in

which the participant was not able to give a single response, the average of their responses was recorded (i.e., for a response of “thirty-five to forty-five minutes,” 40 minutes was recorded).

While the interview was being conducted, none of the trail users entering the parking area were counted for the 3rd through nth person. The selection count started when each interview was completed. This same process was followed throughout each of the survey shifts.

RESULTS: *Clear Creek Trail User Survey*

Demographics

A total of 487 participants completed the survey instrument; 211 were male, 274 female, and two of the surveys were unintentionally left blank by the interviewer (*see Figure 1)*.

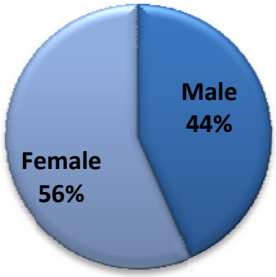

Figure 1: Participant Gender

A total of 466 participants reported being Caucasian American, five reported being African American, four reported being Hispanic American, six reported being Asian American, one reported being American Indian, and five reported being a race other than those listed on the questionnaire (*see Figure 2*).

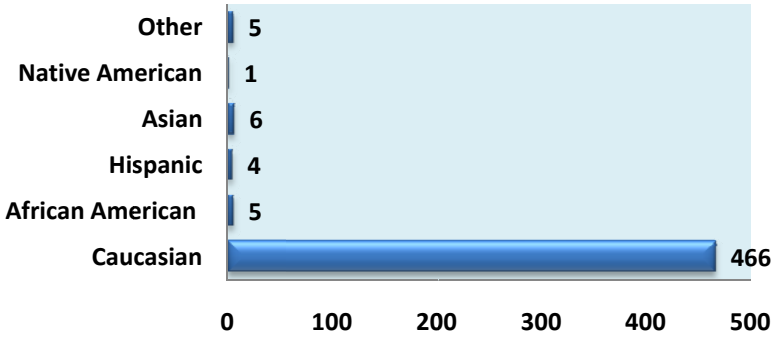

Figure 2: Participant Race

The most common age range reported by the participants was 26 to 45 (47.02%), followed by 46 to 65 (33.47%), 18 to 25 (14.37%), and over 65 (5.13%) (*see Figure 3*).

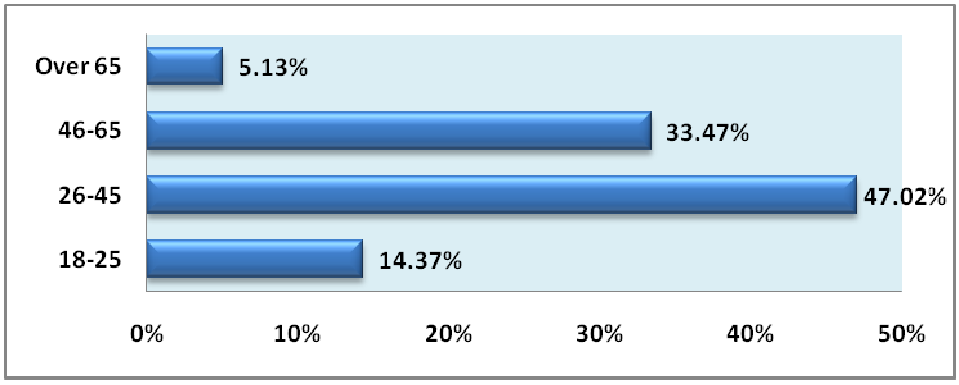

Figure 3: Participant Age

The majority of participants (80.70%) reported an average annual household income of $40,000 or greater. For 0.41% (two participants) this question was unintentionally left blank by the interviewer (*see Figure 4*).

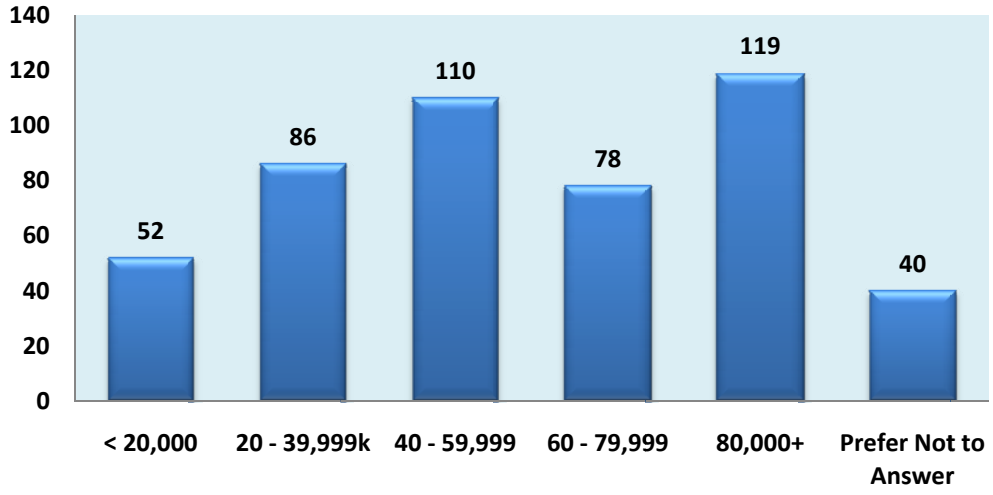

Figure 4: Participant Income

The majority of participants (83.98%) had attended at least some level of college. For 0.62% (three participants) this question was unintentionally left blank (*see Figure 5*).

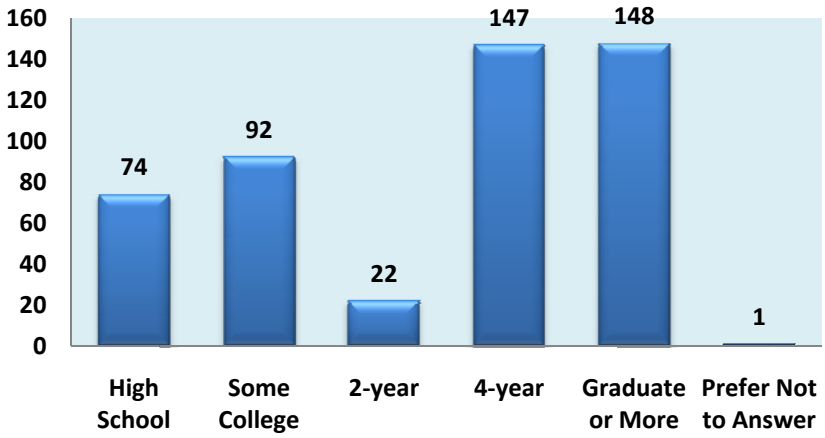

Figure 5: Participant Education Level

Present Use

The peak times for completed surveys were between 12:01 p.m. and 1:00 p.m. and between 7:01 p.m. and 8:00 p.m. However, the number of completed surveys was relatively evenly distributed across time periods with no single one-hour period showing large differences in the number of surveys completed (*see Figure 7*). A combined total of 29.98% of the surveys were completed on weekend days, and 69.82% were completed on weekdays. More surveys were completed on Tuesdays (23.20%) than any other day of the week, with the next highest number (16.63%) being completed on Saturdays (*see Figure 8*). In terms of location, 46.00% were completed at Tapp Road, followed by 27.93% at Church Lane, and 25.46% at That Road (*see Figure 9*). The majority of participants were walkers (61.24%), followed by runners (20.00%), bikers (14.02%), and rollerbladers (4.74%) (*see Figure 10*). The majority of participants (88.91%) drove to the trail, with 80.49% reporting that the time it takes them to get to the trail is ten minutes or less (*see Figure 11*).

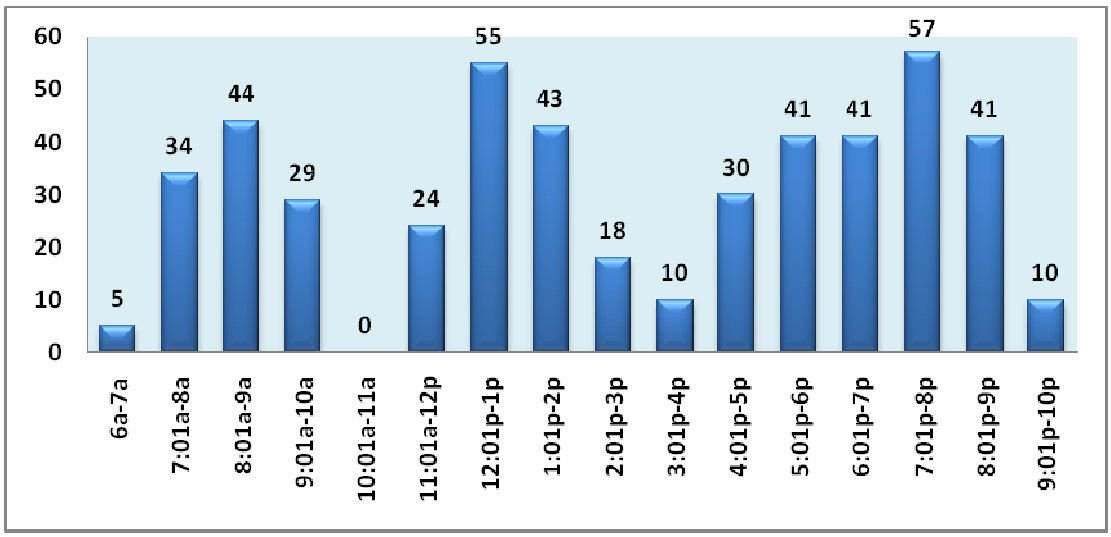

Figure 7: Completed Surveys by Time

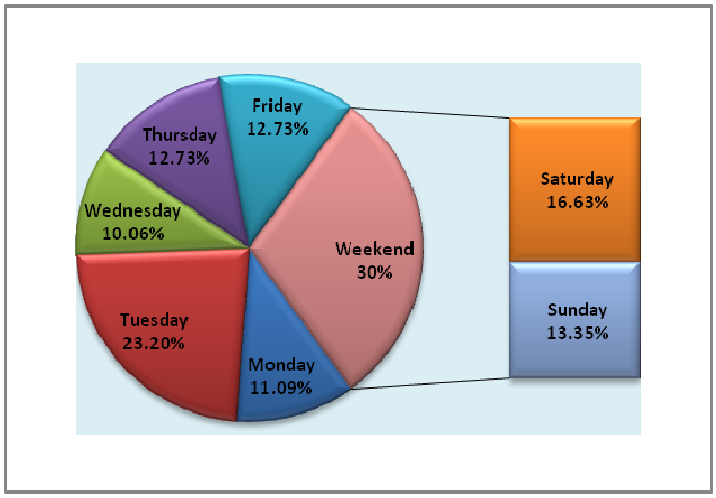

Figure 8: Completed Surveys by Day

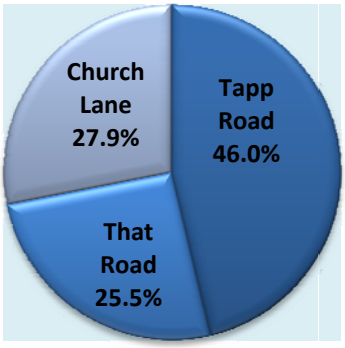

Figure 9: Completed Surveys by Location

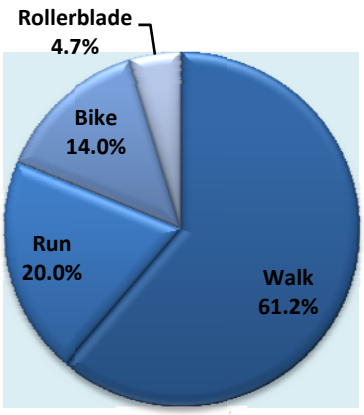

Figure 10: Completed Surveys by User Type

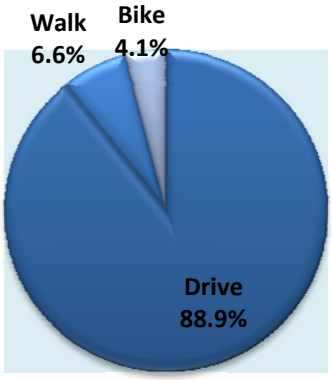

Figure 11: Completed Surveys by Means of Getting to Trail

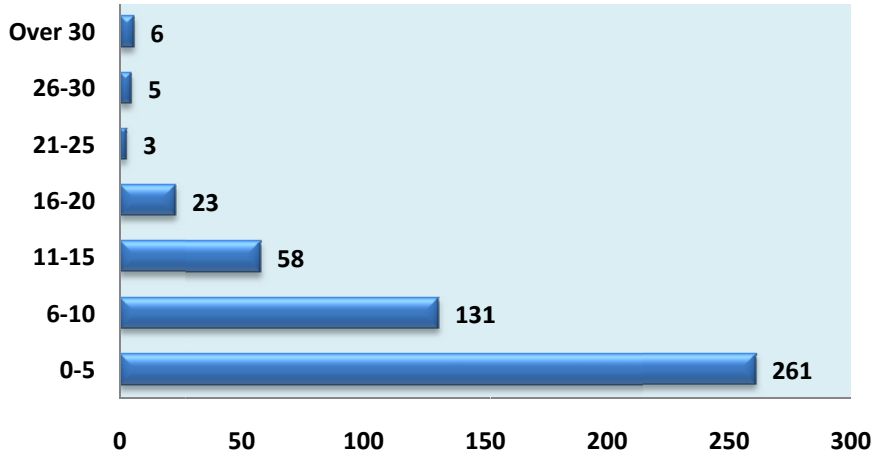

Figure 12: Minutes to Trail

Overall, 56.06% of the participants reported living in Perry Township, followed by Van Buren (12.94%), Bloomington (11.09%), Benton (5.95%), Richland (3.29%), Indian Creek (2.05%), Benton (0.82%), Salt Creek (0.82%), Bean Blossom (0.62%) Townships. No one reported living in Polk or Washington Townships, and 5.34% reported living outside of Monroe County (Not On Map) (*see Figure 32*).

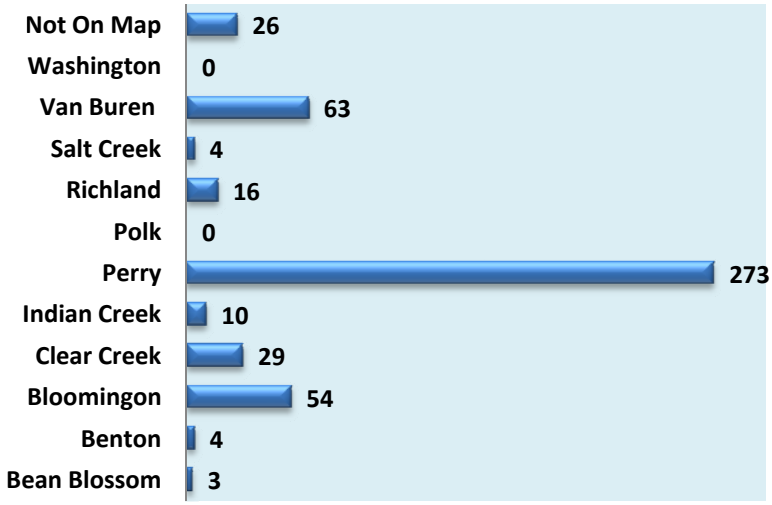

Figure 32: Participants by Township

The majority of participants (65.09%) reported preferring to use the trail in the evening, between 6:01 p.m. and 9:00 p.m. (34.91%), or in the morning, between 5:00 a.m. and 9:00 a.m. (30.18%), with the remaining times being preferred by a total of 34.50% of the participants (*see Figure 13*). For question 11, ("What day(s) of the week do you typically use the trail?") multiple answers were accepted from each participant with the result that no one day was indicated to be more preferred for use. Participants indicated that Sundays were the least preferred day for using the trail.

Overall, the data above seem to show that users prefer to use the trail on weekdays more than weekends (*see Figure 14)*. Because these results differ from the results of several other studies in the literature, there was a concern that a non-sampling systematic error might be the cause of this unexpected finding. In other words, respondents' preferences would be more likely to reflect the day when they were intercepted. The concern was that because 70% of respondents were intercepted on weekdays and only 30% were intercepted on weekends, our result would be a reflection of the days when people were interviewed as opposed to a reflection of overall user preferences. Further analysis indicated that this was indeed the case.

Interestingly, respondents who were weekday users prefer the weekday 31% more than the weekend while respondents who were weekend users prefer the weekend only 15% more than weekdays. In plain language, it might be said that people who use the trail on weekdays really prefer the weekdays and probably have specific reasons for not using the trail on weekends; while weekend users prefer weekend days, but are about as likely to use the trail on weekdays too (*see Figure 14*).

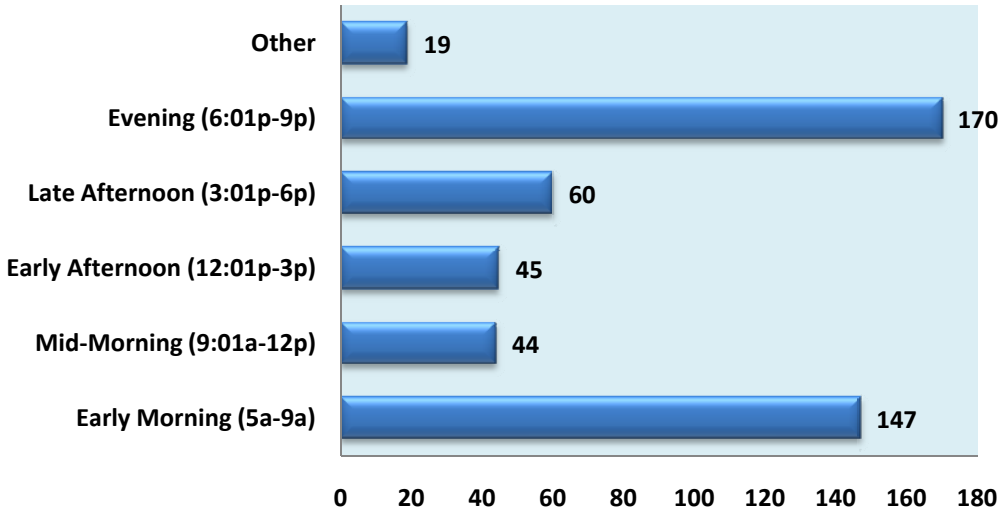

Figure 13: Preferred Time to Use Trail

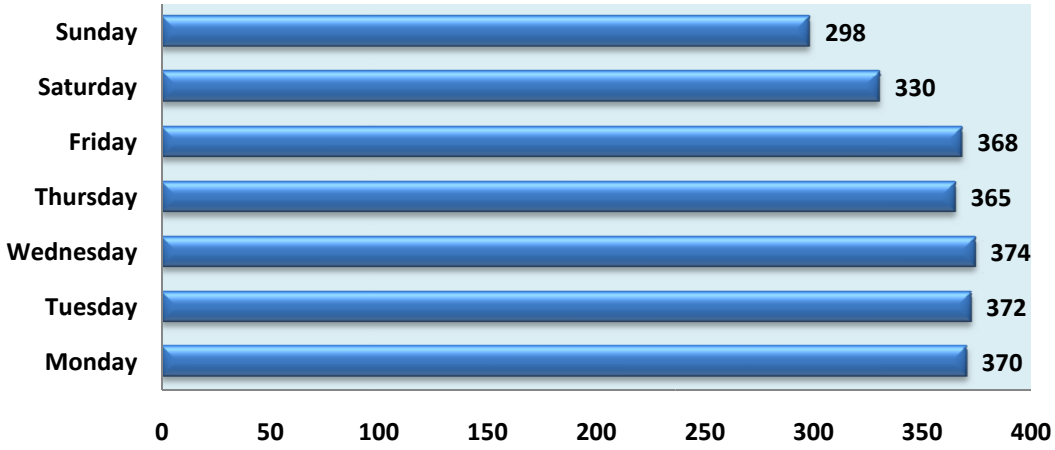

Figure 14: Preferred Day(s) to Use Trail

Most participants reported using the trail either alone (39.8%) or with one other person (38.16%), while a total of 21.43% of the participants indicated a preference for using the trail with two or more other people (*see Figure 15*).

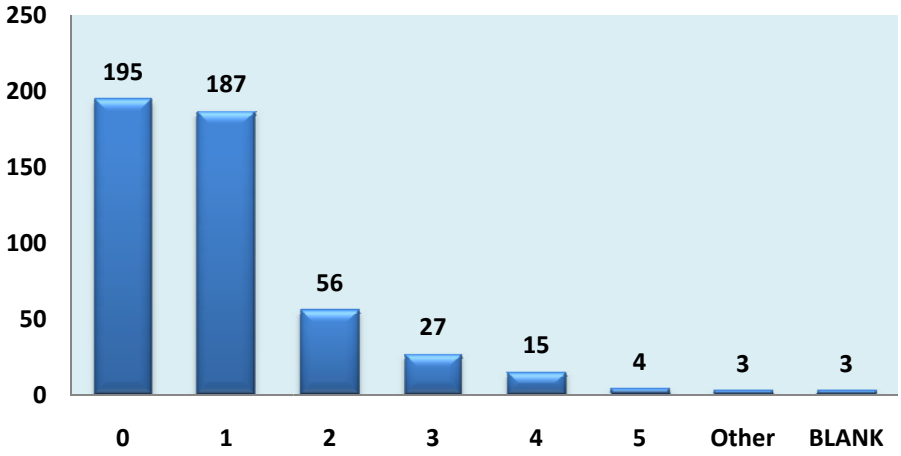

Figure 15: Number of Trail Companions

A total of 39 participants (8.0%) reported that the trail influenced their decision when purchasing a home in the area. The remaining participants reported that the trail did not influence their decision when purchasing a home (88.9%) or that the trail was not near their home (2.9%) (*see Figure 16*).

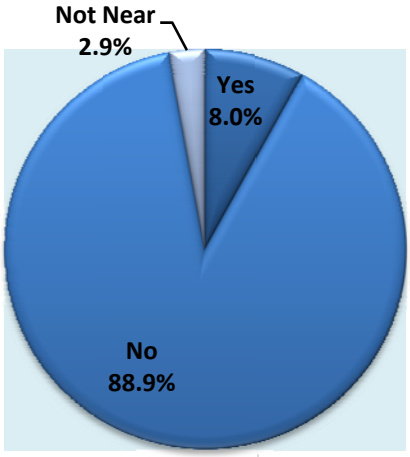

Figure 16: Trail's Influence on Home Purchase

Nearly half of the participants (49.28%) reported finding out about the trail in a manner other than word of mouth, the newspaper, the parks and recreation guide, the radio, or in a flier. Although specific responses for this "Other" category were not tracked, anecdotal information from the interviewers indicates that "just drove by [the trail]" was the most often occurring response within this category (*see Figure 17*).

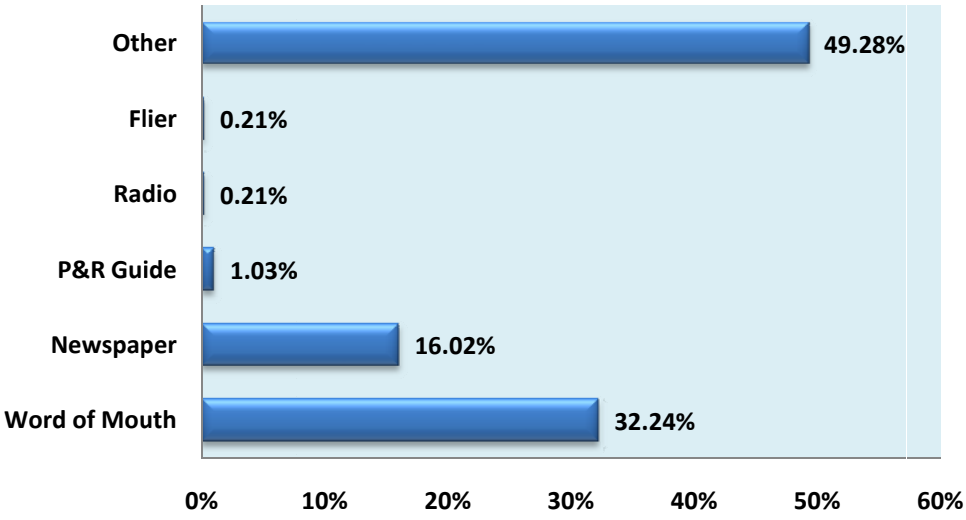

Figure 17: How Trail Users Learned About Trail

Tapp Road was reported as the most preferred place to enter and exit the trail (51.13%), with Church Lane being reported as the most preferred place to turn around (22.59%) while using the trail. All three entry/exit points along the trails that have parking lots were reported as being preferred entry, exit, and turn around spots over any other spot along the trail (*see Figure 18*).

It is important to note that these data are affected by the fact that 46% of respondents were intercepted at Tapp Road, therefore leading to the result that Tapp Road is the most used entry and exit point. Although statistical tests revealed the data set is indeed skewed by this factor, there is no way to test whether the same result would arise from a different sampling method. Based on simple observation of parking lot traffic during data collection, it is clear that the Tapp Road trailhead is the most popular of the three trailheads.

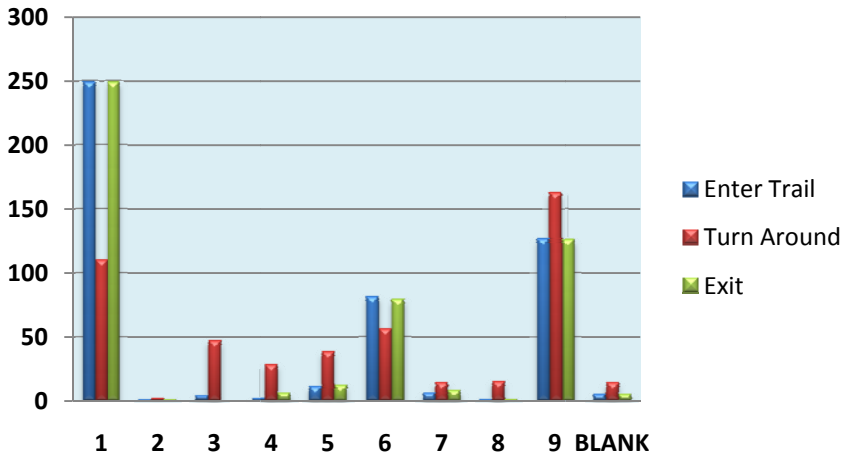

Figure 18: Entrance, Turn Around, and Exit Points

The majority of participants reported not covering the trail multiple times during each visit (82.14%). Among participants who reported covering the entire length of the trail more than one time during a visit (16.84%), the average number of times covered was 2.15 times (*see Figure 19*).

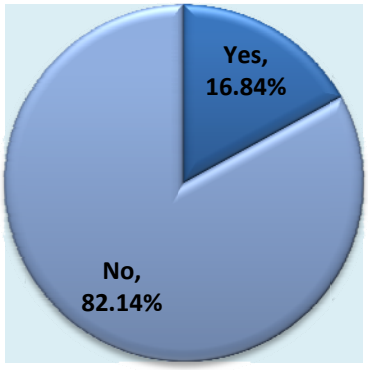

Figure 19: Covered Trail Multiple Times

Physical Activities Indicators

The majority of participants (78.23%) reported using the trail for exercise (*see Figure 20*). In reference to the specific activity each participant was engaging in at the time of the interview (i.e. walking, running, biking, or rollerblading), the majority of participants reported that they had participated in the activity prior to the existence of or their use of Clear Creek Trail (*see Figure 21*). The majority of participants (52.8%) reported that they would participate in the activity not as often or not at all if the trail did not exist, while 46.4% reported that they would participate the same amount (*see Figure 22*). The majority of participants also reported that if they could, they would use the trail more often, and lack of time was the most often reported reason (58.25%) for not using the trail with greater frequency. For this question, 103 participants (21.15%) reported a reason other than the ones listed for that question for not using the trail more often. Among these "other" responses, the most common response was distance from trail/trail is difficult to get to (27.18%), followed by work (18.45%), laziness (10.68%), and responsibilities related to family or children (8.74%) (*see Figures 23 and 24*).

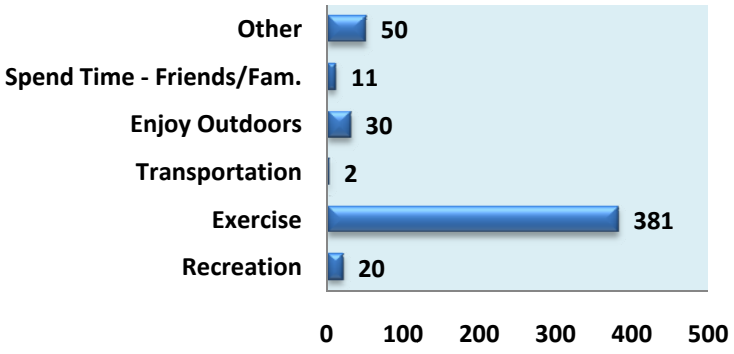

Figure 20: Reason for Using Trail

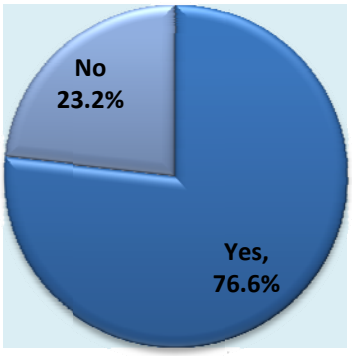

Figure 21: Participate in Activity Before Trail

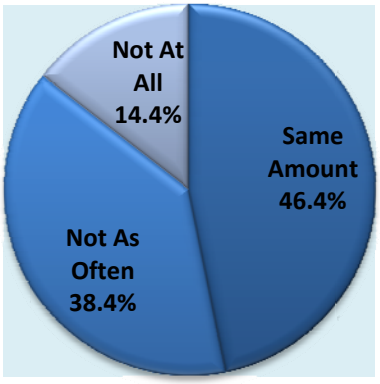

Figure 22: Participate in Activity Without Trail

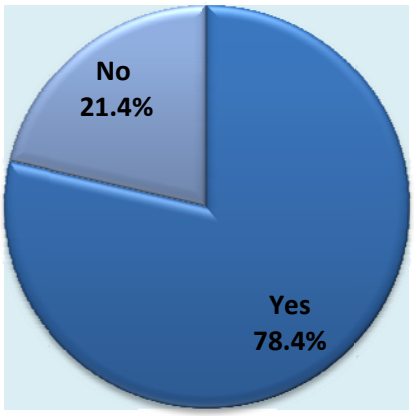

Figure 23: Would Use Trail More If Possible

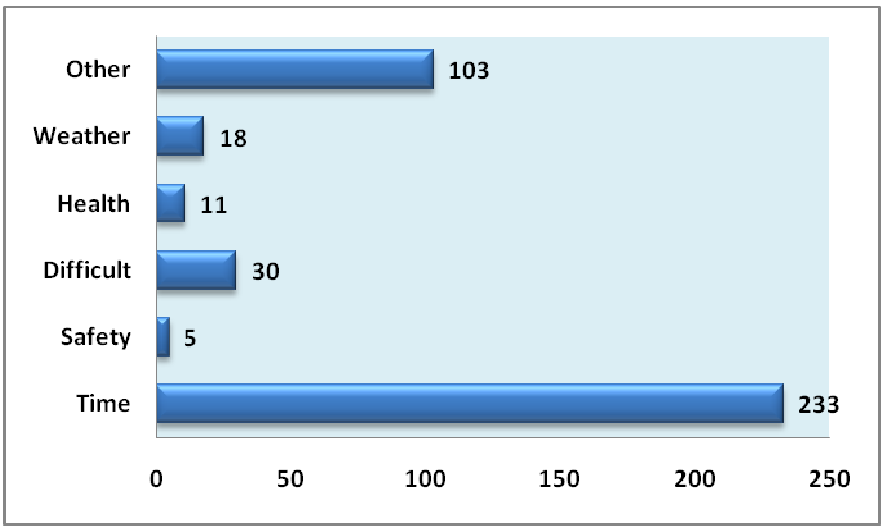

Figure 24: Obstacles to Using Trail More Often

Trail Satisfaction

The majority of participants reported that they do not feel the trail is congested (88.30%) (*see Figure 25*). For those participants who reported feeling that the trail is congested (11.50%), the number of encounters with people was the most often reported reason (28.57%), followed by the number of encounters with groups (14.29%), and the number of encounters with different types of users (12.99%). Overall, 25.97% of the participants reported feeling like the trail is congested for reasons other than those listed for the question. Among these "other" reasons, the fact that the trail is crowded on weekends (23.81%) was the most often cited reason, followed by lack of parking (19.05%), and discourteous users (14.29%) (*see Figure 26*).

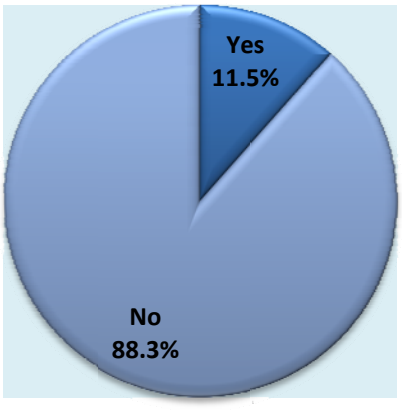

Figure 25: Trail Congestion

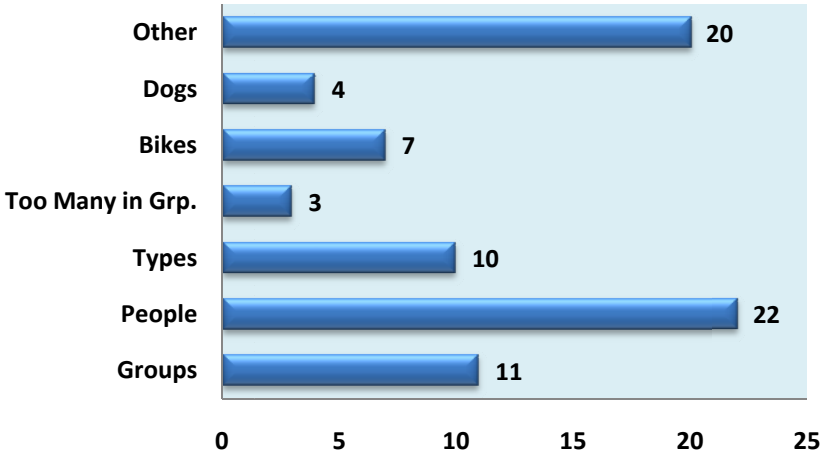

Figure 26: Perceived Cause of Trail Congestion

A seven point Likert-type scale, in which a response of 1 indicates that "very dissatisfied" and a response of 7 indicates "very satisfied", was used to rate participants' level of satisfaction with the trail. The average overall rating for this question was 6.3, with 49.08% stating that their level of satisfaction with the trail was a 7.0 (*see Figure 27*). When asked what the biggest problems with the trail were, 23.82% of the participants reported "nothing." The majority of participants reported something other than the answer choices listed for the question as being the biggest problem with the trail. Among these "other" choices, the most commonly reported reason was lack of water fountains (15.61%), lack of restrooms (12.94%), general maintenance or landscaping issues (9.86%), lack of shade (4.72%), lack of adequate lighting (4.52%), or that the trail surface was too hard (3.49%) (*see Figure 28*).

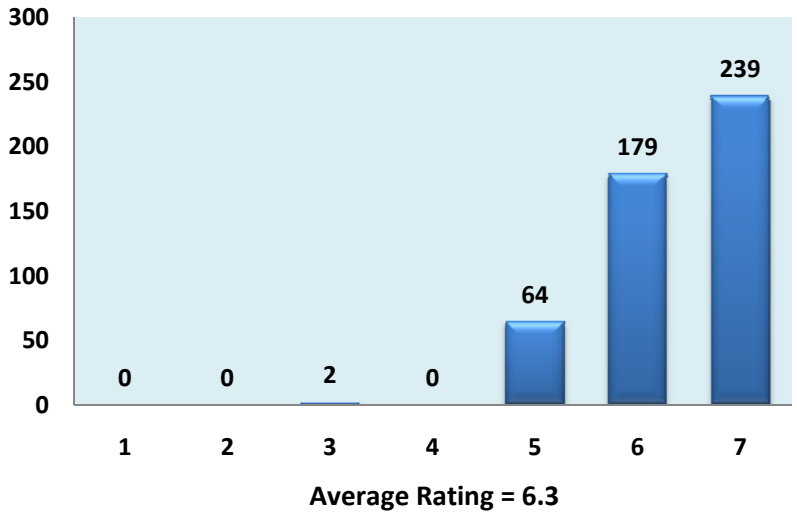

Figure 27: Level of Satisfaction

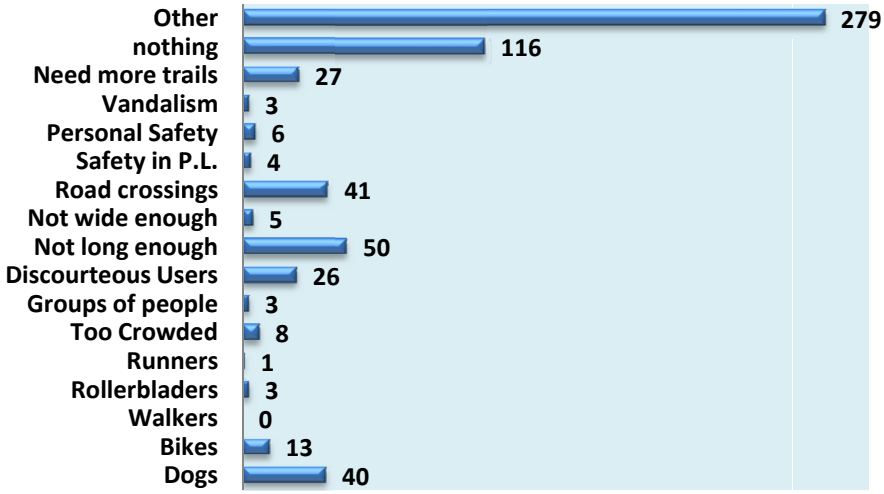

Figure 28: Problems with Trail

The majority of participants reported feeling that the trail was safe (96.71%), while only 2.67% reported feeling that the trail was not safe (*see Figure 29*). Each participant was asked for a reason why he or she feels or does not feel that the trail is safe. However, it was very common for those users who reported feeling that the trail is safe not to give a reason for feeling this way, and 64 responses were recorded for this question. Among these responses, reasons for feeling the trail is safe included the number of users on the trail (10) and feeling as though the area is safe (6) (*see Figure 30*). Reasons for feeling the trail is not safe included the fact that the participant would not feel safe using the trail alone (14), at night (10), as a woman (7), or because of the type of people that use the trail (6) (*see Figure 31*).

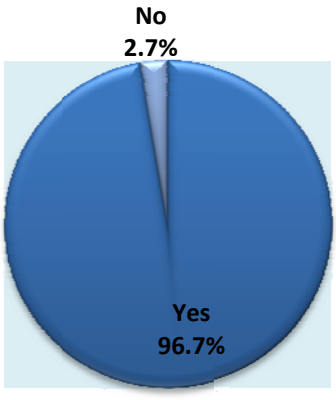

Figure 29: Is Trail Safe?

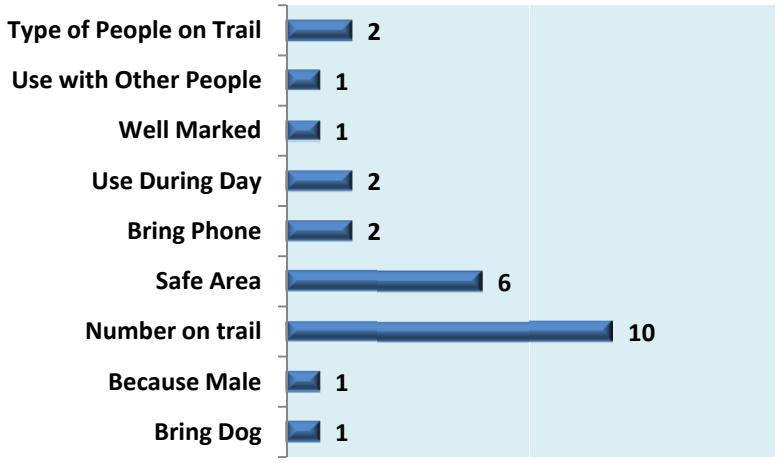

Figure 30: Reasons for Feeling Trail Is Safe

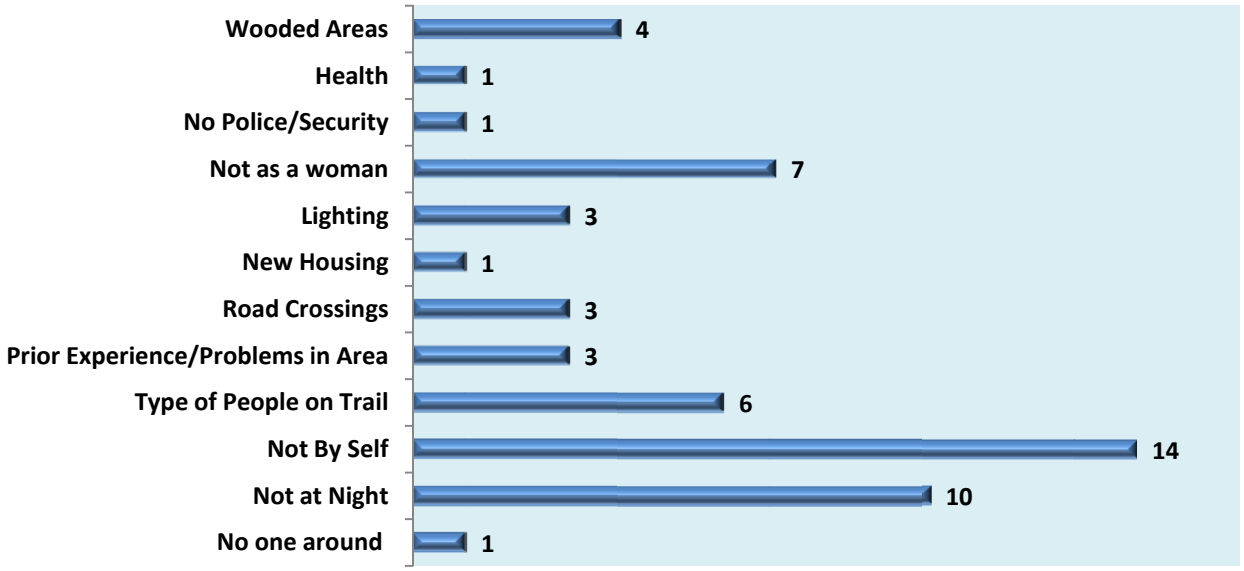

Figure 31: Reasons for Feeling Trail Is Not Safe

Conclusion

The data presented above represents the general findings from the survey research conducted on the Clear Creek Trail in Bloomington, Indiana during 2006. Further analysis of this data is necessary to identify relationships between responses and specific user categories.

Based on previous trail research done by the Eppley Institute and in the general literature, there are some interesting and notable findings from this study:

Preferred times and activities are consistent with the literature demonstrating that trail users prefer to use trails in the early morning or evening. The majority of trail users prefer to walk followed by running, cycling, and rollerblading in that order.

Questions regarding physical activity levels and their relationship to the trail demonstrate that the trail tends to increase users frequency of participation in physical activity. In fact about 25% of respondents reported that they would not participate in their particular activity if the trail were not present. These are important findings as they relate to placement of facilities and their impact on people's physical activity levels and the impact this may have on the obesity pandemic.

Questions regarding the time it takes for users to get to the trail and the distance of the trail from their homes show strikingly consistent results indicating that people generally stay close to home and will travel only 5-10 minutes to get to the trail. This finding is also important in relation to policies about facility placement.

Anecdotally, these findings indicate that placement of trails in areas where people can access them near their homes will increase community physical activity levels, which could lead to a number of positive results and potentially contribute to reduced health care costs in a community.

Appendix A: Clear Creek Trail User Survey

Clear Creek Trail User Survey-Spring 2006

Present Use

Q1 Day of Month

1 ☐	12 ☐	23 ☐
2 ☐	13 ☐	24 ☐
3 ☐	14 ☐	25 ☐
4 ☐	15 ☐	26 ☐
5 ☐	16 ☐	27 ☐
6 ☐	17 ☐	28 ☐
7 ☐	18 ☐	29 ☐
8 ☐	19 ☐	30 ☐
9 ☐	20 ☐	31 ☐
10 ☐	21 ☐	
11 ☐	22 ☐	

Q2 Month

January ☐	July ☐
February ☐	August ☐
March ☐	September ☐
April ☐	October ☐
May ☐	November ☐
June ☐	December ☐

Q3 Time of Day

6:00 a.m. - 7:00 a.m. ☐	12:01p.m. - 1:00 p.m. ☐	6:01 p.m. - 7:00 p.m. ☐
7:01 a.m. - 8:00 a.m. ☐	1:01 p.m. - 2:00 p.m. ☐	7:01 p.m. - 8:00 p.m. ☐
8:01 a.m. - 9:00 a.m. ☐	2:01 p.m. - 3:00 p.m. ☐	8:01 p.m. - 9:00 p.m. ☐
9:01 a.m. - 10:00 a.m. ☐	3:01 p.m. - 4:00 p.m. ☐	9:01 p.m. - 10:00 p.m. ☐
10:01 a.m.- 11 a.m. ☐	4:01 p.m. - 5:00 p.m. ☐	
11:00 a.m.- 12:00p.m. ☐	5:01 p.m. - 6:00 p.m. ☐	

Q4 Location

Tapp Road ☐

That Road ☐

Church Lane ☐

Q5 What activity are you participating in on the trail today? (if not evident from observation.)

Walk ☐

Run ☐

Bike ☐

Rollerblade ☐

Other (please specify) ☐

Q6 How do you normally get to the trail?

Drive ☐

Walk ☐

Bike ☐

Other (please specify)

_____

Q7 Approximately how many minutes does it take to get to the trail from home? (using the method indicated in the previous question)

0-5 ☐	21-25 ☐
6-10 ☐	26-30 ☐
11-15 ☐	Over 30 ☐
16-20 ☐	

Q8 Did the trail location/proximity influence your decision when purchasing your home?

Yes ☐

No ☐

It is not near my home ☐

Q9 How did you find out about the trail?

Word of mouth ☐	Radio ☐
Newspaper ☐	Fliers ☐
Parks & Recreation Program Guide ☐	Other ☐

Q10 What time of day do you prefer to use the trail?

Early morning (5 a.m. - 9 a.m.) ☐	Late afternoon (3:01 p.m.-6 p.m.) ☐
Mid-morning (9:01 a.m.-12 p.m.) ☐	Evening (6:01 p.m.-9 p.m.) ☐
Early afternoon (12:01 p.m.-3 p.m.) ☐	

Other (please specify)..... ☐

Q11 What day(s) of the week do you typically use the trail? (check all that apply)

- Monday ☐
- Tuesday ☐
- Wednesday ☐
- Thursday ☐
- Friday ☐
- Saturday ☐
- Sunday ☐

Q12 How many people typically use the trail with you?

- 0 ☐
- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐
- Other, please specify..... ☐

For Questions 13-15 Refer to Trail Map 1

Q13 Where do you usually enter the trail?

Map Number ☐☐☐☐☐☐☐☐☐ (1 2 3 4 5 6 7 8 9)

Q14 Where do you usually turn around on the trail?

Map Number ☐☐☐☐☐☐☐☐☐ (1 2 3 4 5 6 7 8 9)

Q15 Where do you usually exit the trail?

Map Number ☐☐☐☐☐☐☐☐☐ (1 2 3 4 5 6 7 8 9)

Q16 Do you usually cover the trail multiple times?

- Yes ☐
- No ☐
- If yes, how many times... ☐

Physical Activities Indicator

Q17 How often would you participate in this activity if the trail were not here?

- I would participate the same amount ☐
- I would participate not as often ☐
- I would not participate at all ☐
- If would participate, where? ☐

Q18 Did you participate in this activity at all before the trail was here?

- Yes ☐
- No ☐

Q19 What is your primary reason for using the trail?

- Recreation ☐
- Exercise ☐
- Transportation ☐
- Enjoy the Outdoors ☐
- Spend time with friends/family ☐
- Other (please specify) _____

Q20 Approximately how many times have you used the trail in the past month?

Record number of times..... ☐

Q21 How much time do you usually spend on the trail per visit?

Record time in hours..... ☐

Record time in minutes..... ☐

Q22a If you could, would you use the trail more often?

- Yes ☐
- No ☐

Q22b If yes to 22a, what MOST prevents you from using the trail more often?

- Not enough time ☐
- Concern for personal safety ☐
- Difficult to get to ☐
- Poor health ☐
- Weather ☐
- Other, please specify _____

Trail Satisfaction

Q23a Do you feel like the trail is congested?

- Yes ☐
- No ☐

Q23b If yes to Q23a, what makes the trail feel too crowded or congested to you?

- Number of encounters with groups ☐
- Number of encounters with people ☐
- Encounters with types of users ☐
- Too many people together in a group ☐
- Fast bicyclists ☐
- Dog owners who let their dogs roam on a long leash ☐
- Other, please specify.....

_____

Q24 On a scale from 1-7, 1 being very unsatisfied and 7 being very satisfied, how would you rate your level of satisfaction with the trail?

	1	2	3	4	5	6	7
Numerical Rating	☐	☐	☐	☐	☐	☐	☐

Q25 What do you think are the biggest problems with the trail? (check all that apply)

- Dogs ☐
- Bikes ☐
- Walkers ☐
- Rollerbladers ☐
- Runners ☐
- Too crowded ☐
- Large groups of people ☐
- Discourteous users ☐
- Trail not long enough ☐
- Trail not wide enough ☐
- Road crossings ☐
- Safety in parking lots ☐
- Personal safety ☐
- Vandalism ☐
- Need more trails in Bloomington ☐
- Nothing ☐
- Other, please explain.....

_____

Q26 Do you consider the trail safe?

- Yes ☐
- No ☐

Why or why not?

_____

Demographics

Q27 Age

18-25	☐	46-65	☐
26-45	☐	over 65	☐

Q28 Race

Caucasian	☐	Asian	☐
African American	☐	Native American	☐
Hispanic	☐	Other	☐

Q29 Gender

- Male ☐
- Female ☐

Q30 Household Income

<20,000	☐	60,000 - 79,999	☐
20,000 - 39,999	☐	80,000 +	☐
40,000 - 59,999	☐	Prefer not to answer.	☐

Q31 Education

High school	☐	4-year degree	☐
Some college	☐	Graduate degree or more	☐
2-year degree	☐	Prefer not to answer.	☐

For Question 31 Refer to Trail Map 2

Q32 Using the map, please indicate the township where your residence is located

Bean Blossom	☐	Polk	☐
Benton	☐	Richland	☐
Bloomington	☐	Salt Creek	☐
Clear Creek	☐	Van Buren	☐
Indian Creek	☐	Washington	☐
Perry	☐	Not on Map	☐

Appendix C: Trail Map 2

Trail Map 2