

Results and Analysis of a Survey of Users of The Legacy Trail and Venetian Waterway Park Performed During June and July of 2016

The Friends of The Legacy Trail Survey Team¹
1/17/17

A. Purpose

The primary purpose of this study was to obtain information that will provide a more accurate estimate of the number of trail users. It was motivated by questions about the accuracy of the current method such as:

- Are people not being counted because of the small number of automatic counters?
- Are the counters accurate? Sometimes people go by in groups or side-by-side.
- Is the mathematical model used to convert counter data to usage numbers valid and accurate?

A secondary purpose of the study was to provide information about the characteristics of trail users. For example:

- The distribution of usage of trail access points,
- Average and standard deviation of distance traveled per trip,
- Mode of usage (bike, walk, skate, run, etc.), and
- Frequency of usage.

B. Summary of Significant Results

- The counters on The Legacy Trail under-counted traffic by factors of 2 to 4 during the comparison periods.
- The average one-way distance traveled by cyclists is approximately 9 miles, and the average one way distance traveled by pedestrians is approximately 2 miles.
- 93% of the usages are round trips on the trail.
- The distribution of access point usage was obtained from an online survey. The highest usage access points are Laurel Road, Culverhouse Park, and Central Sarasota Parkway.

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C. Data Collection

There were two types of surveys:

1. Questionnaires – both online and on the trail, and
2. Visual traffic counts at the automatic counters

The surveys and traffic counts were conducted during June and July of 2016.

1. Questionnaires

There were two types of questionnaires:

1. Online using Survey Monkey: 168 responses.
2. On-trail personal interviews: 212 people were interviewed.

2. Visual Traffic Counts

Approximately 14 hours of traffic data were visually recorded at three automatic infrared counter stations.

There were two purposes for this type of count:

1. To verify the counts on the automatic counters and to provide a correction factor to account for people missed by the counter, such as those in groups or traveling side-by-side, and
2. To evaluate the ratios of the different modes of travel (bike, walk, run, skate, etc.)

The counts were conducted at the counters at Central Sarasota Parkway, the 681 Overpass Bridge, and at Hatchett Creek. A total of 760 people were counted.

D. Data Results

1. Trail Counter Evaluation

Table A gives the comparison between the visual counts and the counts recorded on the counters at the three counter stations. As shown, there is a huge difference between the observed traffic and the counts recorded by the counter. It may be that the sensitivity of the counters can be adjusted to give better results; however, these results provide further evidence that passive infrared counters may not be appropriate in Florida temperature conditions. The use of other types of counters, such as active infrared counters, should be considered for future use.

	Observed	Counter Recorded
Central Sarasota Parkway 7/6/2016	106	25
681 Bridge 7/2/2016	192	98
Hatchett Creek 7/1/2016 and 7/5/2016	171	71

It is not known how long the counters have been undercounting trail users by this much. Certainly, all recent data is suspect.

2. Modes of Usage

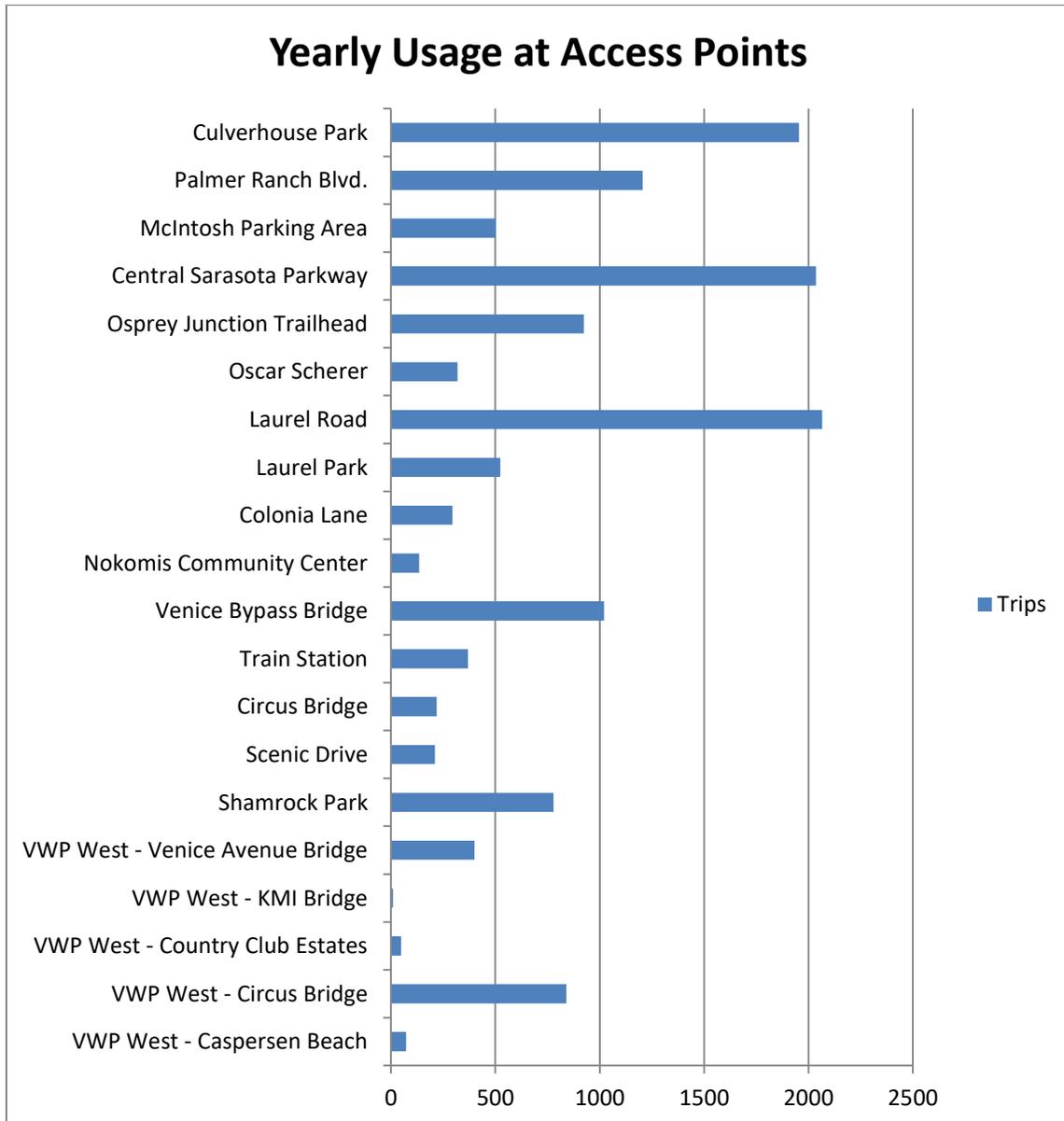
Table B gives the distribution of trail usage modes at the three counter stations. One of the interesting results shown here is that there are more walkers on the north end of the trail. No walkers made it to the 681 bridge, presumably because this point is far from the popular access points.

	Central Sarasota Parkway	681 Bridge	Hatchett Creek
Cyclists	83.8%	99.0%	94.1%
Walkers	8.9%	0%	5.9%
Runners	6.3%	1.0%	0.0%
Skaters	1.0%	0%	0.0%

3. Starting Locations

Figure 1 shows the distribution of usages of the major trail access locations on The Legacy Trail and the Venetian Waterway Park. Only the data collected in the online survey was used for this chart. Most of the on-trail interview data was collected at the north end of The Legacy Trail and would therefore be biased toward the northern access points.

Figure 1



4. Mean Distance Traveled

The statistical distribution of how far people travel on a typical trip on the trail is very important in calculating the number of trail users from the counter data. To estimate this distribution the mean and sample standard deviation were calculated from the data. Results are given on a per person basis and on a per usage basis. The difference occurs because some people use the trail quite often, while others use it very infrequently. It is believed that the per usage basis is the most appropriate because it is trail usages that we wish to know. The number of yearly usages per person is obtained by multiplying the reported number of uses per month times the number of months that the person spends in Sarasota County.

Table C – Mean One-Way Distance Traveled				
	Person Avg	Person Std Dev	Usage Avg	Usage Std Dev
Combined Data	8.74	4.47	8.56	4.65
Cyclists	9.43	4.12	9.42	4.27
Walkers	2.13	1.22	1.99	1.05
Runners	3.39	1.62	3.36	1.47
Skaters	5.08	2.25	5.25	1.73

5. Percent of Users Making a Round Trip on the Trail

This number is important because a person who goes out and back will be counted twice at each counter that they pass. On a per person basis, it was found that 95.5% of the users go out and back on the trail. On a per usage basis, 93% of the usages are round trips

Acknowledgements

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