



**TRAIL UTILIZATION STUDY:
ANALYSIS OF THE TRAIL
SYSTEMS WITHIN THE OIL
HERITAGE REGION**
Data Period: July – December 2006

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I. EXECUTIVE SUMMARY

A trail utilization study was conducted in the Oil Heritage Region of Venango County and the southern portion of Crawford County in Pennsylvania from July 2006 to December of 2006. A network of trails over 60 miles in length that spans through Oil Creek State Park, Two Mile Run County Park, and traverses along the Allegheny River was the study area of the project. The following greenway trail systems were monitored in the study: the Allegheny River Trail, the Justus Trail, Two Mile Run County Park, the Sandy Creek Trail, the State Forest at Kennerdell, and Oil Creek State Park. The waterway trail system was also analyzed on a limited basis in the study (See Appendix A: Project Location Map).

The study discloses the volume of trail use, the residency of trail users and distance that these users are traveling to access the trails, the size of groups visiting the area, the favored types of recreational activities, the seasonality of trail use, the types of accommodations most often used, the types of expenditures that trail users perform, and the recreational attributes that users consider to be important and what types of conditions these attributes are in within the area.

Based on the trail counters that operated from July of 2006 to October of 2006, a total of 82,930 users were estimated to be visiting the trails in the Oil Heritage Region. According to the 261 surveys that were returned during the total study period, these trail users are predominantly from Pennsylvania (78%), especially the western portion of the state. Only 23% of in-state users are categorized as living within the Oil Heritage Region. Twenty-two percent (22%) of trail users travel from other states such as Ohio, New York, and Florida to visit the trails. Trail users most often access the trails with another person, and travel, on average, a distance of 33.25 miles to get to the trails. Trail users are mostly employed professionals or retired and tend to be middle-aged, falling into the age cohort of 46 to 65 years old.

Seventy-five percent (75%) of surveyed trail users cited the trails as their main reason for coming to the area. They often enjoy an above average income. Trail users often visit the trails to go biking (74%) and walking (16.6%). Almost four percent (3.8%) of trail users back pack and jog the trails. Most trail users come to the trail system within the Oil Heritage Region to enjoy the scenery, watch wildlife, and go birding. The majority of trail users visit the trails a few times per year and stay on the trails for at least two hours, while they are there. Seventy-seven percent (77%) of the users are day-trip users who prefer to visit in the autumn and summer season. The users who do stay overnight, tend to stay for two nights and often stay in campgrounds. Trail users find the natural scenery, cleanliness, smooth trail surfaces, and maintenance of the trails to be the most important recreational aspects of the trail, while they hold cleanliness, connection to picnic areas, shade, and parking as the most highly regarded attributes of the trail system within the Oil Heritage Region.

Non-local trail users spent an average of \$32.93 per person per day or \$88.49 per group, while Oil Heritage users spent a daily average of \$3.71 per person or \$10.91 per group. Trail users spent the majority of their money on dining out and lodging. The 82,930 users who visited the trails between July and October created an economic benefit of \$2.22 million within the Oil Heritage Region. It is estimated that approximately 160,792 users frequented the trail system within the Oil Heritage Region throughout the 2006 calendar year, creating an estimated overall

economic impact of roughly \$4.31 million.

II. TRAIL SYSTEM WITHIN THE OIL HERITAGE REGION

The Oil Heritage Region has a vast supply of culture, scenic areas, and recreational trail systems. These cultural and natural assets provide a substantial boost in the revitalization of the communities in the area, as well as securing economic growth. The purpose of this study is to determine just how much the trail systems economically benefit the businesses and residents of the Oil Heritage Region.

The Oil Region Alliance of Business, Industry and Tourism (ORA) and the Allegheny Valley Trails Association (AVTA) have contracted with Post, Buckley, Schuh, and Jernigan Inc. (PBS&J) (as an independent private planning consultant), in order to generate a trail utilization study of the trail system within the Oil Heritage Region. To obtain a measure of trail use on the local economy, three major concepts were explored: the frequency/density of trail use; the characteristics of trail users; and types of expenditures performed by trail users.

The trail system within the Oil Heritage Region consists of a network of trail segments. The following greenway trail systems were monitored in the study: the Allegheny River Trail, the Justus Trail, Two Mile Run County Park, the Sandy Creek Trail, the Clear Creek State Forest at Kennerdell, and Oil Creek State Park (See Appendix A: Project Location Map). The waterway trail system was also analyzed on a limited basis in the study. The study was staged throughout the regional trail system and utilized trail counters, user surveys, tally sheets, and business surveys to generate the study's results.

III. RESEARCH DESIGN

The Trail Utilization Study of the trail system within the Oil Heritage Region was conducted between July 2006 and December 2006. The study was staged throughout the regional trail system and utilized trail counters, user surveys, tally sheets, and business surveys to generate the study's results.

Trail Counters

Remote Sensor Portable Traffic Counters were stationed at three different sites for the majority of the study. These locations were the Allegheny River Trailhead at the Salt Box House in Franklin/Cranberry Township, the northern end of the Justus Trail in Oil City, and at the Belmar Bridge on the northern portion of the Sandy Creek Trail. Trail counters were also temporarily situated in Oil Creek State Park (late August through late September) and in the Kennerdell Tract of State Forest (mid-November through December). (Appendix A.)

Remote Sensor Portable Traffic Counters are portable, battery powered active infrared light beam instruments designed for counting moving objects in the outdoor environment. In this

specific study, the “moving objects” were the trail users. However, the trail counters cannot always distinguish between a biker, wildlife, and sometimes even plant matter. Thus, care needed to be used when analyzing the generated data.

The counters operated via a sensor and a reflector. The sensor emitted an infrared light beam across the trail, which was reflected back to the instrument by the reflector. Whenever the beam of light was interrupted, the instrument registered a count and produced the total number of interruptions (users) on the instrument. The counters could retain up to fourteen (14) days of data. Electronic interrogators were plugged into the traffic counters to gain more detailed user information. By using an interrogator, the researcher could obtain up to 14 days of hourly counts from the traffic counters. This data could then be recorded on paper, so that traffic counters could be reset in order to start calculating the next two-week data set.

Monthly and Daily Use Patterns of the Trail System

The data provided by the trail counters were placed into a Microsoft Excel database, so that they could be analyzed. Each trail’s data was investigated for total daily use for each month, as well as the median hourly use throughout the course of the study. Medians were used as the measure of central tendency in this portion of the investigation, due to how erratic the counters could be at times. This way a more true measure of trail use could be recorded. Even though the counters provided data throughout the entire day, only counts registered between 0600 and 2100 were included in analyzing the volume of usage on the trails to avoid erroneous counts.

In addition, it should be noted that all three (3) of the counters used throughout the study were not functioning throughout the full month of each month’s recordings. Therefore, it was difficult to compare the overall trail usage of each of the trails. Thus, the median of both hourly use patterns and total daily users was calculated in an effort to produce a somewhat accurate comparison between the trail counters within the study. Table 1 displays the recorded data for each trail for each month of the study.

Table 1. Trail counter data available for each month and trail segment (2006)

TRAIL SEGMENT	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER
SANDY CREEK TRAIL	7/3 - 7/14	8/1 - 8/5	9/1 - 9/7	10/1 - 10/31	N/A
	7/27 - 7/31	8/16 - 8/31	9/20 - 9/30		
JUSTUS TRAIL	7/10 - 7/31	8/1 - 8/9	9/4 - 9/27	10/3 - 10/4	N/A
		8/12 - 8/31			
ALLEGHENY RIVER TRAIL	7/4 - 7/13	8/15 - 8/31	9/1 - 9/5	10/1 - 10/31	11/1 - 11/2
	7/15 - 7/23		9/23 - 9/30		
	7-26 - 7/27				
OIL CREEK STATE PARK	N/A	8/24 - 8/31	9/1 - 9/23	N/A	N/A
KENNERDELL STATE FOREST	N/A	N/A	N/A	N/A	11/14 - 11/22

It should also be noted that the counters do not provide an entirely accurate count of users entering the various trailheads. Because some users both enter and exit at the same trailhead, they may pass the traffic counter and be counted twice. However, some users may enter at one trailhead and then exit at another location. Thus, one cannot assume that the trail counters are simply double that of the actual count of users. Also, if a group of people were to pass by the counters simultaneously, the counter may lump the users as one “interruption”. Therefore, some

users may be missed by the traffic counters. In order to combat these problems, an actual tally of how many users were on the trail was done for brief specific hours during the study to provide a means of translating the traffic counter numbers into actual counts of trail use. However, this data was limited and differed from trail to trail.

Since this issue was addressed in a similar trail study conducted by the University of Pittsburgh, "The 2002 User Survey for the Pennsylvania Allegheny Trail Alliance", an equation was developed to compare the two differing values to provide more accurate results. Therefore, this analysis has adopted that same equation, assuming a similar empirical relationship exists in our trail system, for this trail study. The equation is:

$$\text{Actual Number} = 0.657 * \text{Traffic Number}$$

This equation is reflected in the values that were generated for the trail counts in the tables and figures below (Table 1A, 1B, 1C and Figure 1A, 1B, 1C).

Belmar Bridge in Sandy Creek Township

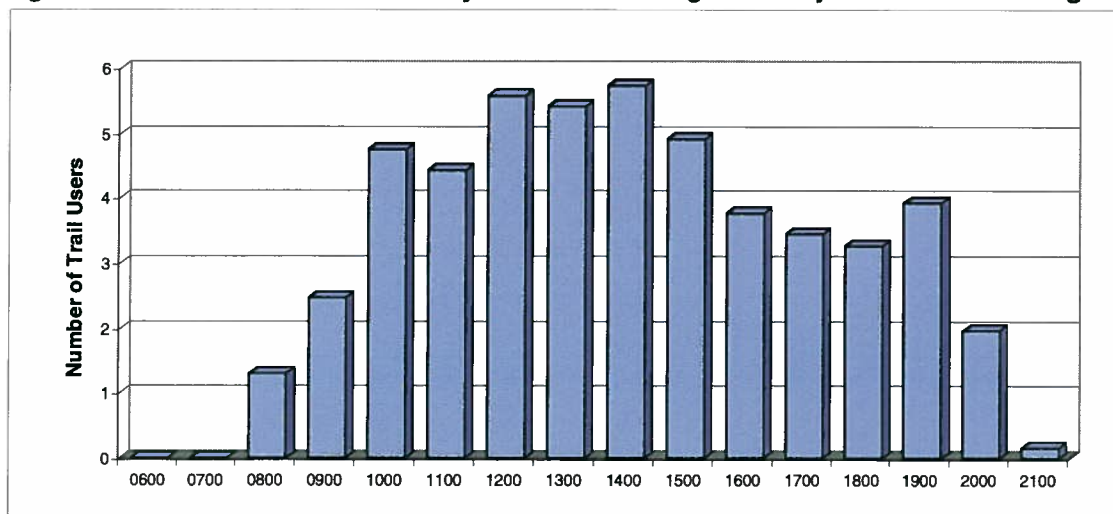
One of the traffic counters was placed at the northern trailhead of the Sandy Creek Trail at the Belmar Bridge and was checked bi-weekly from the beginning of July through October.

Table 1A. Median hourly use patterns at the Belmar Bridge on the Sandy Creek Trailhead (2006)

MEDIAN HOURLY USE PATTERNS AT BELMAR BRIDGE TRAILHEAD																
Month	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
July	0.0	0.0	1.3	3.3	8.5	6.9	10.2	12.2	5.9	6.6	5.9	3.9	2.6	5.3	3.9	2.0
August	0.0	0.7	1.6	3.0	7.6	4.9	6.2	3.9	6.9	3.6	4.3	4.3	3.9	4.6	3.9	0.3
September	0.0	0.0	1.3	2.0	2.0	3.3	4.9	5.9	3.9	6.2	3.3	3.0	4.6	3.3	0.0	0.0
October	0.0	0.0	0.7	0.7	2.0	3.9	4.3	4.9	5.6	3.3	2.3	3.0	2.6	0.7	0.0	0.0

Figure 1A illustrates the median number of hourly trail users throughout the course of the study. The figures displays a relatively normal distribution of trail users throughout the day with peak use occurring between 1100 (11:00 AM) and 1500 (3:00 PM).

Figure 1A. Median number of hourly trail users during the study at the Belmar Bridge



Justus Trailhead in Oil City

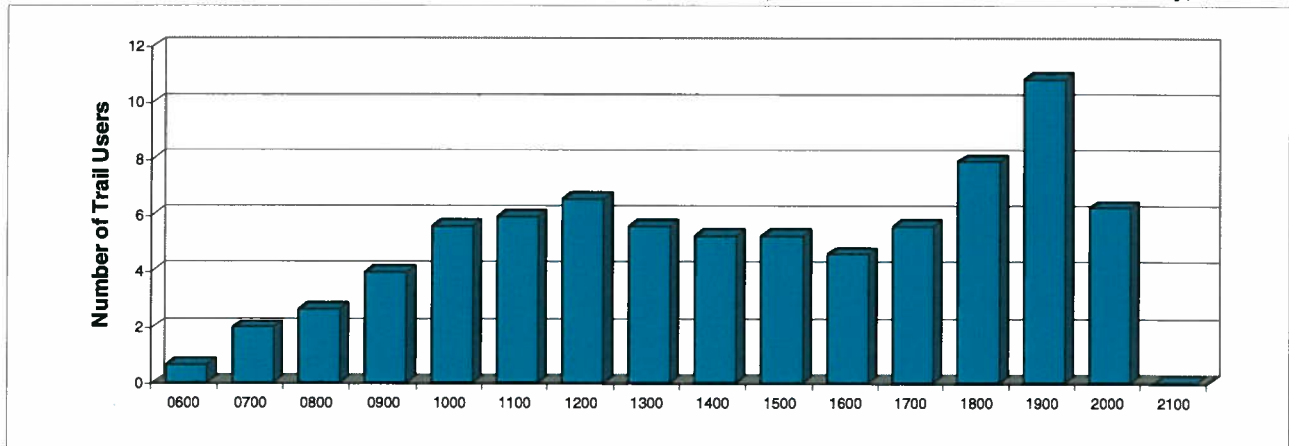
A traffic counter was placed at the northern end of the Justus Trailhead near the trail side fitness station area and was checked bi-weekly from mid-July through the beginning of October.

Table 1B. Median hourly use patterns at the Justus Trailhead in Oil City, PA (2006)

MEDIAN HOURLY USE PATTERNS AT THE JUSTUS TRAILHEAD																
Month	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
July	2.0	2.0	5.6	9.2	5.6	6.6	5.9	5.3	5.9	3.9	4.6	4.3	7.2	11.2	9.2	1.3
August	0.7	1.6	2.6	3.9	5.9	5.9	6.6	6.6	5.3	5.3	3.9	5.6	8.2	10.8	6.2	0.0
September	0.0	2.3	2.6	3.3	4.6	3.6	7.9	5.6	5.3	5.9	5.3	7.2	7.9	8.5	1.3	0.0

Figure 1B illustrates the median number of hourly trail users throughout the course of the study. The figure displays a relatively normal distribution of trail users throughout the day, but then experiences an additional peak in the evening hours. The Justus Trail is most heavily used at noon and then between 1700 (5:00 PM) and 2000 (8:00 PM). This data suggests this trail is used heavily by local users who are able to use the trail during lunch hours and then again in the evening.

Figure 1B. Median number of hourly trail users during the study at the Justus Trailhead in Oil City, PA



Allegheny River Trail (ART) in Cranberry Township

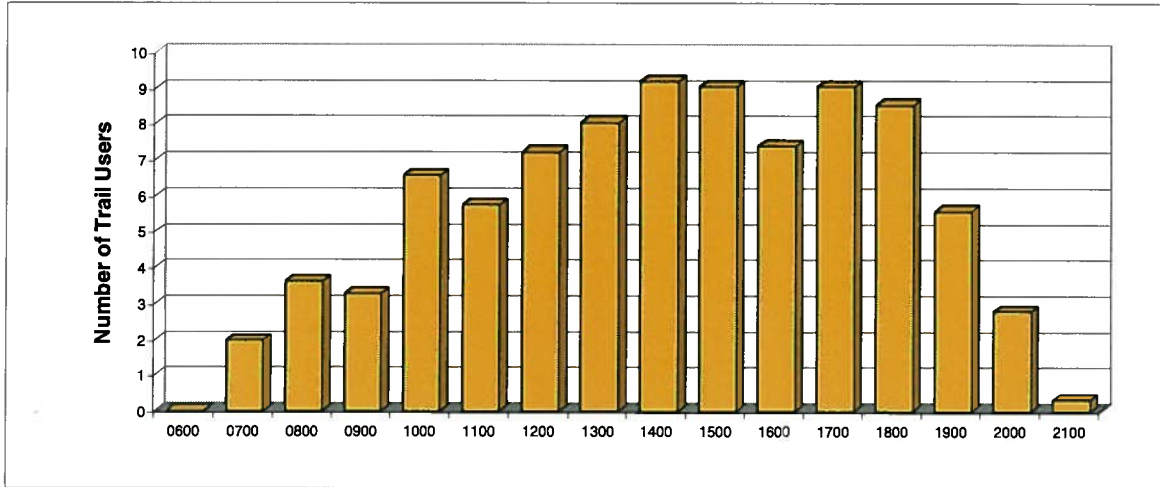
A trail counter was placed at the northern trailhead of the ART near the Salt Box House in Cranberry Township along U.S. Route 322 east of Franklin; and was checked bi-weekly from the beginning of July until the beginning of November. However, the counter did malfunction for a few weeks during the month of September and needed to be sent off-site for repairs. Therefore, there is a limited amount of data during this month.

Table 1C. Median hourly use patterns on the Allegheny River Trail (2006)

MEDIAN HOURLY USE PATTERNS ON ALLEGHENY RIVER TRAILHEAD (SALT BOX)																
Month	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
July	0.0	2.6	6.2	10.5	14.5	17.1	17.1	15.8	19.7	15.8	14.5	14.5	16.4	8.5	5.9	0.7
August	0.0	3.9	4.6	3.3	7.2	9.2	10.8	10.2	11.2	12.2	8.9	10.8	13.5	10.8	5.6	0.7
September	0.0	1.3	2.6	3.3	5.9	2.0	1.3	5.3	7.2	5.9	5.9	7.2	3.3	2.6	0.0	0.0
October	0.0	1.3	1.3	1.3	2.6	2.3	3.6	5.9	2.6	4.3	3.9	3.6	3.6	0.7	0.0	0.0

Figure 1C illustrates the median number of hourly trail users throughout the course of the study. It shows a relatively even distribution of trail use throughout the course of a day. The trail is heavily used between 0900 (9:00 AM) and 1900 (7:00PM). There is no real pattern of significant periods of dramatically low or high usage times. The trail is busy from mid-morning until the evening hours.

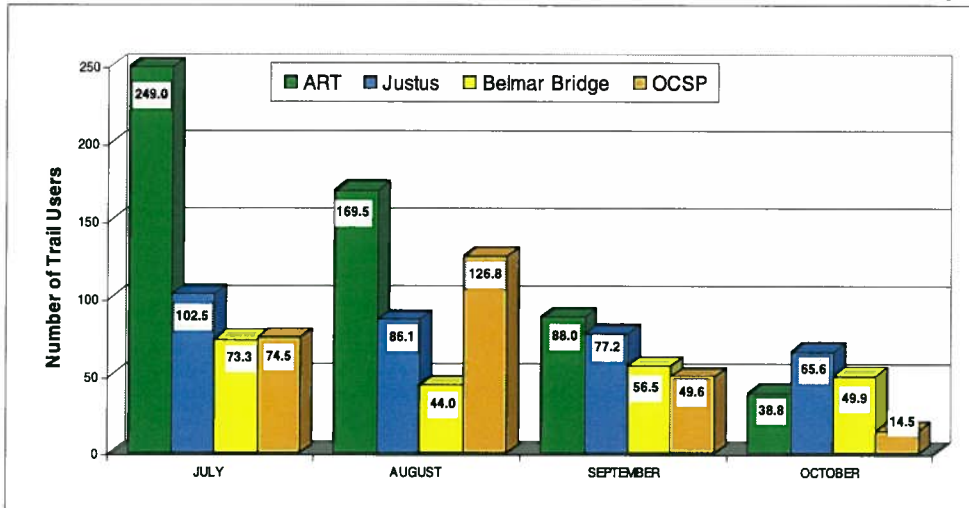
Figure 1C. Median number of hourly trail users during the study on the ART at the Salt Box House



Monthly Usage of the Trail System (Trail Counter Data)

The median number of total trail users throughout each month of the study was also calculated and is illustrated in Figure 2. The available data at the following locations (ART at the Salt Box House, Justus Trailhead, and Sandy Creek Trail at the Belmar Bridge) were tabulated for July through October. OCSF data was provided by the park system database for July, August, and October. September usage volumes were tabulated in the same manner as the prior trail counter data.

Figure 2A. Median number of total daily trail users for each month of study



Note: The median number of total users on the Justus Trail in October was estimated based on the following three months of data (July, August, and September) and the limited amount of available October data.

Of the study months, July registered the highest number of total daily users, while the ART at the Salt Box House was indicated to be the most abundantly used trail. It was also the trail that was the most affected by seasonality, displaying dramatic decreases in trail use as the study approached the colder months. The Justus Trailhead displayed a much less significant decrease in usage throughout the duration of the study. The access point at the OCSP Bike Trail peaked in August and then dramatically decreased in use by October. The Sandy Creek Trail at the Belmar Bridge was the least affected by the change in the seasons; the volume of use remained relatively constant throughout the study period.

Trail counters were utilized so that the volume of trail users could be tabulated throughout the duration of the study. However, because of how irregular the monthly counter data was, one could not simply sum up these values to develop total usage patterns. Therefore, each trail segment's monthly median value of total daily trail users (illustrated in Figure 2 and shown below in Table 2) was multiplied by the number of days per month and then the trail segments were totaled for overall usage of these four (4) access points from July through October. **The calculated total number of users over the study period that were recorded by the trail counters at these four (4) sites was 42,430 trail users.**

Table 2A. Number of users captured by trail counters on the evaluated trails from July - October

Trail Segment	July	August	September	October
	Median Number of Daily Users on Each Trail Segment			
ART	249	169.5	88	38.8
Justus	102.5	86.1	77.2	65.62
Belmar Bridge	73.3	44	56.5	49.9
OCSP	74.5	126.8	49.6	14.5
	Total Monthly Users on Each Trail Segment			
ART	7719	5254.5	2728	1202.8
Justus	3177.5	2669.1	2393.2	2034.22
Belmar Bridge	2272.3	1364	1751.5	1546.9
OCSP	2309.5	3930.8	1537.6	449.5
Total	15478.3	13218.4	8410.3	5233.42
Total Number of Users in Study Period on All Four Segments:				42,340

Estimated Annual Usage of the Entire Trail System

Uncaptured Trail User Data:

Since the study did not run throughout the course of the year, nor did it include some trailhead entrances, a number of trail users were not captured in the trail counter data when attempting to calculate actual trail usage. Per the request of the ORA and AVTA, a rational analytical method was developed to determine estimated annual trail use throughout the entire trail system on an annual basis. The following factors were examined in this section in order to provide an estimate of trail use over the course of the past year:

1. **Trailheads Not Included in Trail Counter Data** – there are two categories of concern to include here:
 - i. Multiple access points on the “counted” trails that were not captured in the trail counter data

- ii. Additional trails that were included on the User Survey in Question 19 and a part of the trail system within the Oil Heritage Region, but were not measured by the trail counters, because the use of these counters were focused on the more densely populated trails (i.e.: Kennerdell State Forest, Two Mile County Park, and water trails)
2. **Seasonality of Trail Use** – calculations produced from trail counter data and user survey responses to determine usage patterns over the four seasons, and ultimately trail use over the course of the entire year

Additional Access Points that Were Not Captured by Trail Counters

Trail counters provided data for major trailhead access points on the ART, at OCSP, the Sandy Creek Trail, and the Justus Trail. However, each of the trail segments has multiple access points with parking. Thus, a number of trail users were not captured by the trail counters, because these users entered the trail at a different access point. In order to compensate for this missed data, the following assumptions were made at each of these four trail segments in Table 3:

Table 3. Proportion of trail users not captured by trail counters on four counted trails

Trail Segments	Trailhead Counted	Additional Trailheads	Inclusion Multiplier
Allgheny River Trail	Franklin	Deep Hollow/Brine Plant, Brandon St. George, Rockland Station, Dotter, Emlenton	1.5
Sandy Creek Trail	Belmar	Rockland Road, Van, Fishermen's Cove	1.5
Justus Trail	Oil City	Franklin (up toward Oil City)	1.5
Oil Creek State Park Trail	Petroleum Centre	Jersey Bridge and multiple other trailheads	2.5

*The inclusion multipliers that are included in Table 3 to count the trail users who were “missed” by the trail counters were provided by the AVTA and ORA after initial investigations of the trail counter data.

The inclusion multiplier is included to account for the trail users deemed “missed” in the study. Thus, it is assumed that one-third (1/3) of the trail users along the ART, Sandy Creek Trail, and Justus Trail were not accounted for and that three-fifths (3/5) of the trail users were not counted along the trail system at Oil Creek State Park. These proportions of users “missed” were incorporated into Table 4 below, which is a revision of Table 2A in which the trail segments were multiplied by the inclusion multiplier to determine an estimated number of trail users.

Additional Trails Not Measured

Available data in Figure 23B provide results of the percentage of use per trail segment over the entire trail system based on responses from the User Survey. The percentage of responses per trail segment included the following statistics:

- ART: 23%
- OCSP: 23%
- Sandy Creek Trail: 21%
- Justus Trail: 19%
- Kennerdell: 7%
- Two Mile: 4%
- Water Trails: 2%
- Other: 1%

Therefore, since Kennerdell Tract of State Forest, Two Mile County Park, the Water Trails, and “Other” were not counted, it is assumed that **14% of the total projected trail users were not captured on these remaining trails.**

The 14% of users “missed” over the study period was also incorporated into Table 4 to develop a total trail usage amount. It displays both the “Total Number of Users in Study Period on All Four Segments” and the “Total Number of Users in Study Period of Entire Trail System”. The latter usage amount accounts for both the four monitored trail segments (72,746 users) and those trails included in this section that were not incorporated into the trail count (10,184 users). It lists a total of 82,930 persons (72,746 + 10,184) utilizing the entire trail system over the course of the study period. **An estimated 82,930 trail users accessed the trail system within the Oil Heritage Region over the course of the study period from July through October.**

Table 4. Revision of Table 2A + the additional trail segments that were not counted

Trail Segment	July	August	September	October
	Median Number of Daily Users on Each Trail			
ART	373.5	254.25	132	58.2
Justus	153.75	129.15	115.8	98.43
Belmar Bridge	109.95	66	84.75	74.85
OCSF	186.25	317	124	36.25
Trail Segment	Total Monthly Users on Each Trail Segment			
ART	11578.5	7881.75	4092	1804.2
Justus	3408.45	4003.65	3589.8	3051.33
Belmar Bridge	5773.75	2046	2627.25	2320.35
OCSF	5773.75	9827	3844	1123.75
Total	26534.45	23758.4	14153.05	8299.63
Total Number of Users in Study Period on All Four Segments:				72,746
Total Number of User in Study Period of Entire Trail System:				82,930

*Revised to include both assumptions that were stated above

Effects of Seasonality on Trail Use:

The above two assumptions provide an estimate for total trail use over the study period, but do not account for trail use on an annual basis. To determine an amount of annual usage, the survey questionnaire was utilized. Question 8 of the survey provided a response in terms of trail use over the four seasons. By calculating the response rate of use for the various seasons, an estimate of seasonal trail use was obtained. By extracting this data plus the available estimates of use stated above, an overall annual estimate of trail use was calculated.

In Question 8, trail users were asked to rank their seasonal trail use from one to four (1=most amount of use, 4=least amount of use). The seasons were given a “1” ranking a total of 307 times in the surveys. The following seasons received “1” rank in terms of use in the trail user survey:

- Summer = 143 “1” entries, 47% of total
- Fall = 93 “1” entries, 30% of total
- Winter = 16 “1” entries, 5% of total
- Spring = 55 “1” entries, 18% of total

The following assumptions/conclusions were then made:

1. *Each season consisted of the following three (3) months:*
 - a. *Summer = June – August*
 - b. *Fall = September – November*
 - c. *Winter = December – February*
 - d. *Spring = March – May*

2. The actual study period consisted of four (4) months of data with two (2) months falling in the "summer season" and the other two (2) months falling in the "fall season". Therefore, two-thirds of the data was available for each of these seasons.
3. The trails included in the trail counter calculations accounted for 86 percent of the total trail use of the entire trail system. (This was a prior conclusion that was addressed above on pages 8 & 9 and is illustrated in Figure 23B.)
4. Partial data for summer and fall seasons were used to estimate the following total seasonal usage calculations:

$$\text{Total Summer Use} = (3/2) * [(\text{July Use} + \text{August Use})] = (3/2) * (58,480.1) = 87,720 \text{ people} \\ (86\%)$$

$$\text{Total Fall Use} = (3/2) * [(\text{September Use} + \text{October Use})] = (3/2) * (26,107.8) = 39,162 \text{ people} \\ (86\%)$$

5. Seasonal usage entered in surveys is indicative of actual seasonal usage patterns on the trail system. Thus, 47% of annual trail users visited the trail system in the summer and 30% of users visited the trails in the fall, etc. Therefore, the following equations could be assumed:

$$\text{Summer Use} = (\text{Total Annual Use}) * (47\%)$$

$$\text{Fall Use} = (\text{Total Annual Use}) * (30\%)$$

$$\text{Winter Use} = (\text{Total Annual Use}) * (5\%)$$

$$\text{Spring Use} = (\text{Total Annual Use}) * (18\%)$$

6. The available summer and fall trail use estimates were used to calculate the total annual trail use.

$$\text{Total Annual Use} = (\text{Total Summer Use}) / (47\%)$$

OR

$$\text{Total Annual Use} = (\text{Total Fall Use}) / (30\%)$$

7. In order to eliminate a bias for either season, the average calculated total use from these two seasons was calculated for the estimated total annual usage of the trails.

8. The total trail use was calculated by the following equation:

$$\text{Total Annual Trail Use} = \frac{[(\text{Summer}) / (47\%)] + [(\text{Fall}) / (30\%)]}{2}$$

$$= (317,177) / (2)$$

$$= 158,589 \text{ total trail users}$$

9. The other seasons were calculated from this grand total:

$$\text{Winter} = (5\%) * (\text{Total}) = 7,929 \text{ people}$$

$$\text{Spring} = (18\%) * (\text{Total}) = 28,545 \text{ people}$$

Table 5. Total annual/seasonal trail users

User Type	Amount
Total Summer Users	87,720
Total Fall Users	39,162
Total Winter Users	7,929
Total Spring Users	28,545
TOTAL ANNUAL USERS	158,589 – 163,356 (Average: 160,792)

*Total annual users consists of a range of estimates; average of the range is used

Therefore, the estimated number of trail users who frequented the trail system within the Oil Heritage Region throughout the calendar year of 2006 ranged between 158,589 – 163,356 people. The average populace of this range is 160,792 users.

IV. PHYSICAL FOUR-HOUR COUNT

In order to gain a better understanding of the types of users who frequent the trails, as well as to determine the accuracy of the trail counters, site visits were conducted. A study group of volunteers tabulated the number and types of users who entered the trail system within the Oil Heritage Region at various access points. Due to the limited number of volunteers and a prior rain out, the trail visit was conducted as a weekend event on Saturday, October 7, with the exception of one trail visit that took place on Sunday, October 8.

To conduct trail visits, volunteers were provided tally sheets (Appendix E) and were dispersed at seven (7) different access points throughout the trail system. Two (2) shifts of volunteers were developed. Counts occurred simultaneously and captured both morning and afternoon users. The AM shift was held from 10 AM to 12 PM and the PM shift lasted from 2 PM to 4 PM. The PM shift generated a much higher volume of trail users than the AM shift, which was most likely due to the chilly morning temperatures that day. The Sunday shift also tabulated much higher usage volumes at the same time and location than Saturday's shift. This was also most likely a weather-related incident, because the weather on Sunday was very warm and sunny. However, the trailhead did experience slightly higher usage volumes on Sunday than Saturday with an average number of total daily users totaling 150 and 165 users, respectively.

Volunteers were stationed to provide user counts, but they could also conduct trail interviews. Volunteers at random locations kept tabs of where non-local trail users traveled from (Pittsburgh, Ohio, Meadville, Harrisburg, etc.) and also collected quotes from what the trail users said about the trail. Some examples include:

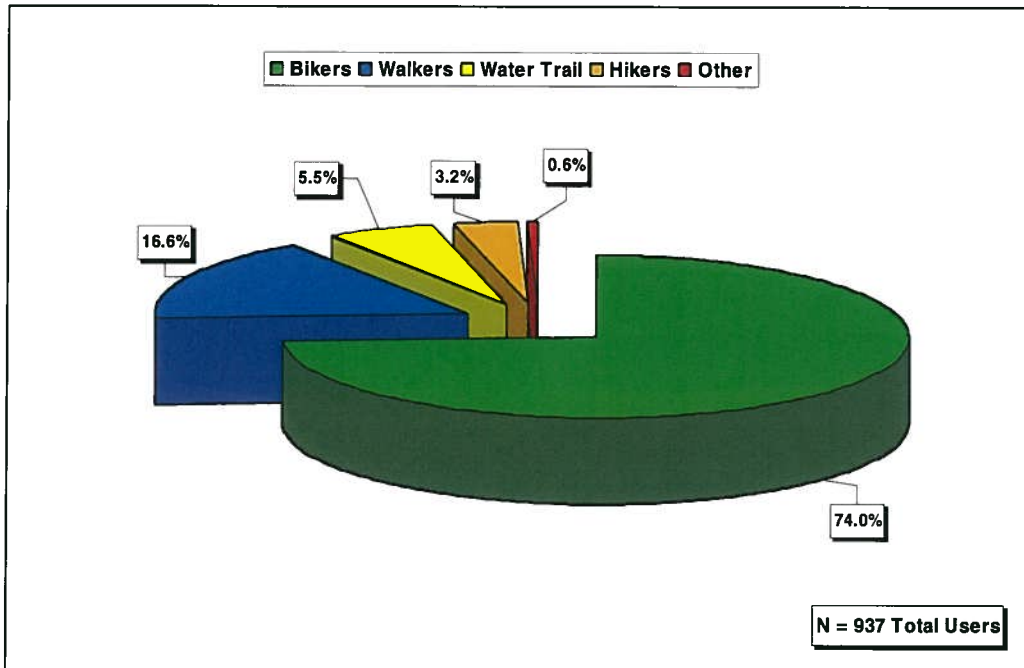
- "Best trail ever"
- "You've allowed us to see beautiful areas that would have been lost to us."
- "Best thing that has ever happened around here."

The total number of users is tabulated in Table 2 from the weekend's events, while Figure 2B illustrates the type of activities the trail users were partaking in.

Table 6. Tally sheets of trail users (observed on Oct 7 – 8 only)

Saturday, October 7, 2006										
Trail Segment	Time	Bikers	Runners	Walkers	Skaters	Wheel Chair	Water Trail	Hunters	Hikers	Total
Belmar Bridge	PM	33	0	13	0	0	0	0	0	46
ART - Belmar to Sunny Slopes	AM	17	0	5	0	0	27	0	0	49
ART - Belmar to Sunny Slopes	PM	43	0	4	0	0	16	0	0	63
ART - Franklin to Belmar	PM	73	0	2	1	0	0	0	0	76
Jersey Bridge	AM	12	1	11	0	0	4	0	0	28
Jersey Bridge	PM	93	0	26	0	0	0	2	24	145
Justus	PM	35	0	8	0	0	0	0	0	43
OCSP	AM	39	0	0	0	0	1	0	0	40
OCSP	PM	63	0	20	0	0	4	0	6	93
Sandy Creek - Belmar - Rockland - Van	AM	32	0	2	0	0	0	0	0	34
Sandy Creek - Belmar - Rockland - Van	PM	62	0	12	0	1	0	0	0	75
TOTAL	-	502	1	103	1	1	52	2	30	692
Sunday, October 8, 2006										
Belmar Bridge	PM	191	0	53	1	0	0	0	0	245

Figure 2B. Percentage of trail user types in the trail system within the Oil Heritage Region (observed on Oct 7 – 8 only)



Note 1: Other = Runners, Skaters, Wheel Chair Users, and Hunters

Note 2: Hikers were differentiated by walkers in the actual trail observations, but not in the trail survey. Hikers were categorized as “backpackers”. They utilized the trails to access the local forests for “off-trail” hiking. Walkers were day time visitors enjoying the paved, smooth trailway system.

Almost 700 users were witnessed entering these seven (7) trail segments over a total of four (4) hours on Saturday, with the OCSP Jersey Bridge and the Sandy Creek Trail being the most heavily accessed points. Sunday’s trail visit totaled 245 users at only one location during one shift, which is quite dramatic. Most of the users entering the trails were bikers, encompassing the activities undertaken by almost three-quarters of the trail users. Walkers and water trail users (predominantly fishermen) were the next largest categories in terms of trail use.

V. TRAIL SURVEY USER INPUT

The primary means of collecting trail utilization data was done via trail user surveys. The surveys were made available to users along the trail system within the Oil Heritage Region from July 2006 through December 2006, and totaled 261 returned surveys by the end of the study period. Trail surveys were placed in boxes (see photograph below) at key access points along the trail system. There were nine (9) various survey locations, which were coded onto the surveys to distinguish among the different sampling points. The following survey locations were utilized:

- Belmar
- River Trailhead at the Kennerdell Bridge
- OCSP Jersey Bridge Trailhead
- OCSP Trailhead near Petroleum Centre and Oil Creek
- Northern trailhead of the ART near the Salt

- Northern section of the Justus Trail near the fitness area
- Dennison Run Trailhead Parking Lot
- Box House
- Sandy Creek Trailhead
- Two-Mile Run County Park near the entrance

Note: Survey location codes were not included on the first round of surveys that were distributed. Therefore, some surveys were unable to be analyzed when comparing data among differing trail segments in the study.



Oil Creek State Park (office at the Petroleum Centre), Drake Well Park Museum (lobby or gift shop), the Salt Box House, and the ORA's office also served as distribution centers, in addition to the trail-side survey locations. Some surveys were mailed to the trail users via an address list that was provided by the OCSP database system, as well as the AVTA's guest log book. To generate more water trail user responses, surveys were also mailed to the participants of some of the Allegheny River fishing tournaments held by the ORA.

Survey forms were divided into five different categories (A – E), so that information could be obtained on the user's trip profile, visitor profile, expenditures, demographic information, and attitudes on the trail system's attributes. (Appendix B) The survey consisted of twenty-three (23) questions geared toward trail user activities, frequency of trail use, amount of time and money spent by trail users, and opinion questions to determine what the users' attitudes were toward current trail attribute

conditions and what types of trail amenities were important to them.

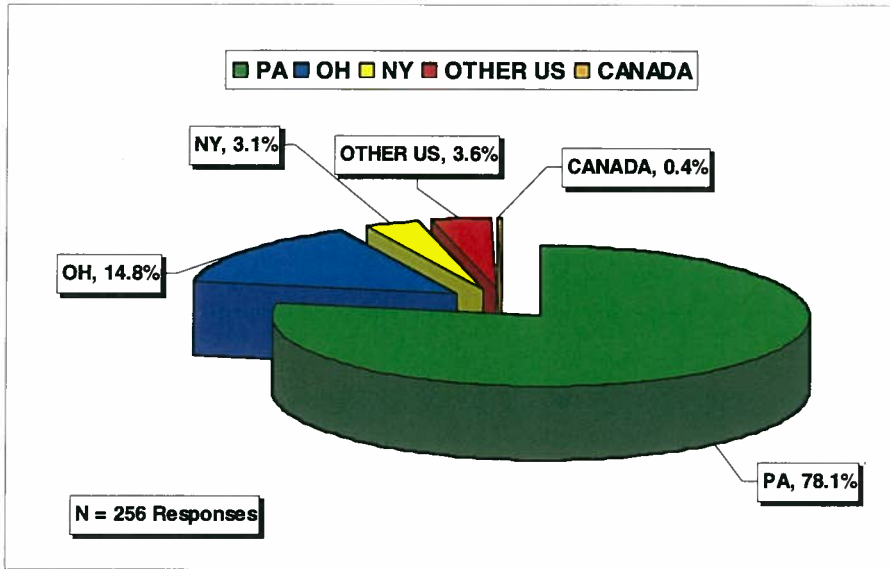
Trip Profile

This section was created to gain information on where the survey respondent resided, how many people were in his/her party, the distance the trail users traveled to visit the trails, and what types of activities the trail user(s) participated in while visiting the trail system within the Oil Heritage Region.

1. What is your residence Zip Code?

This question enabled the study team to determine where the trail users were traveling from to access the trails. Thus, one can gain an understanding on how well-known the trails are throughout the country, as well as the willingness of these respondents to travel to the trails in the area. Figure 3A illustrates the ratio of respondents across North America.

Figure 3A. Percent of respondents by state or nation



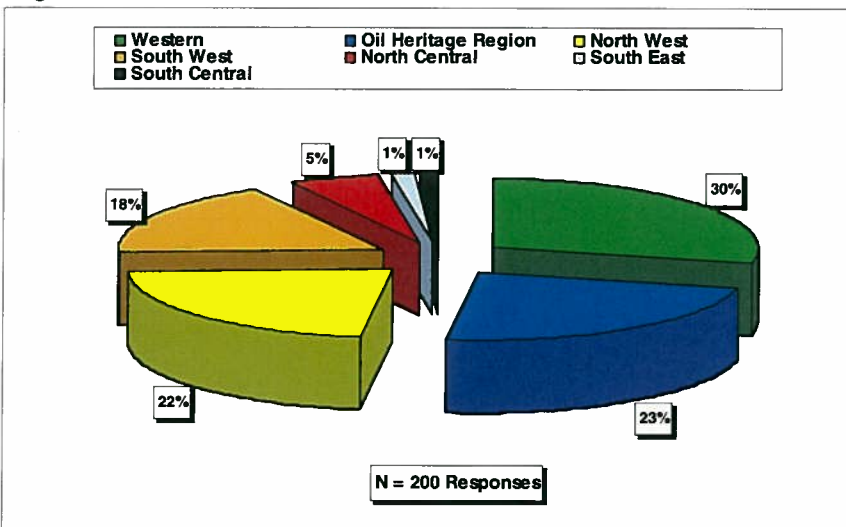
Note: Other US = Colorado, Florida, Illinois, Indiana, Maryland, & New Hampshire

Most users were from Pennsylvania, which encompassed over three-quarters of the survey users. The next most popular states to visit the trails were Ohio and New York. A couple from Canada also frequented the trails, and indicated that they would return with more users.

Because such a large number of trail users were from Pennsylvania, users in this state were further categorized into regions within the state (Figure 3B):

- Oil Heritage Region
- Balance of Northwest PA
- Western PA
- South West PA
- South Central PA
- North Central PA
- South East PA

Figure 3B. Regional patterns among PA residents using the trail system within the Oil Heritage Region

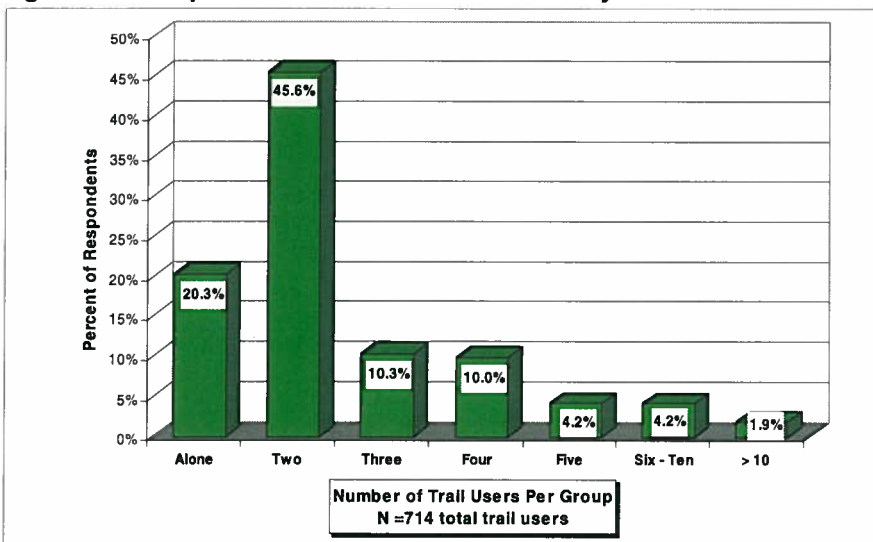


Regional usage patterns across PA were spread relatively evenly among Western, Northwest, and South West PA, as well as the Oil Heritage Region. This would be expected, since the Oil Heritage Region is located in Western PA. The trail system experienced very little use from residents in Eastern or Central PA during the study period.

2. How many people, including yourself, are in your group? _____ people

Group size is an important dynamic of trail use. Survey respondents were questioned about the number of people visiting the trails. Almost half of the trail users indicated that they frequented the trails with another person. One in every five trail users visited the trails alone. One-third of the trail users traveled in groups of anywhere from three to ten people. A fraction of groups consisted of anywhere from twelve to thirty trail users. The average group size was 2.78 people, while the median number of users in a group was two (2) people.

Figure 4. Group size of trail users on the trail system within the Oil Heritage Region



2a. Are any children under the age of 15 with you on your trail experience today?

- Yes
- No

2b. If YES, how many are:

- "Under age 10"
- "Ages 10-14"

The number of trail users who brought their children on the trails with them is displayed in Table 7, below. Most users preferred to use the trails alone or with other adults. Few survey respondents indicated that they brought children under the age of 15 with them, and the majority of these children were at least of adolescent age (10-14 years old).

Number of Respondents with Children Under 15	38
Percent of Total Responses	15%
Total Number of Children	78
Percent of Kids Under Age 10	41%
Percent of Kids Of Ages 10-14	59%

3. Did you stay last night adjacent to the trail system?

- Yes
- No

If NO, how far did you travel to get to where you entered the trail today? _____ miles

The responses to this question are illustrated in Figure 5 and Figure 6. The majority of trail users (83%) did not stay adjacent to the trails, thus indicating that most users were “day-trip users”. Almost half of the trail users traveled a distance of anywhere from 0 to 20 miles to reach the trails. About one-third of the trail users traveled anywhere from 40 to 80 miles to reach the trail. Few (5.7%) traveled greater than 100 miles to access the trail, which roughly corresponds with Figure 3. The average distance traveled by trail users was 33.25 miles; the median distance was 20 miles.

Figure 5. Percentage of respondents who stayed adjacent to the trail system within the Oil Heritage Region

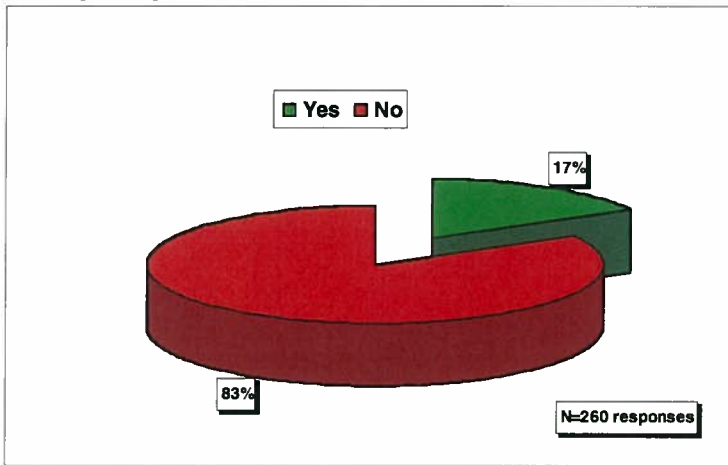
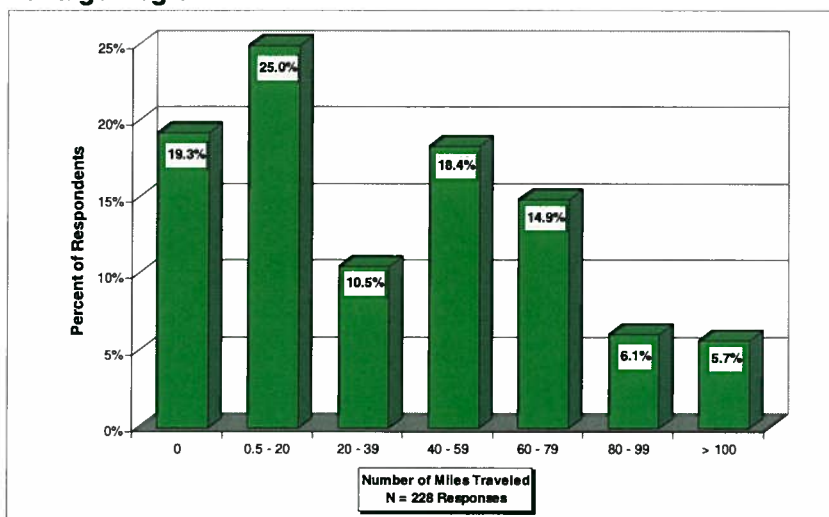


Figure 6. The distance traveled one-way by trail users to access the trail system within the Oil Heritage Region

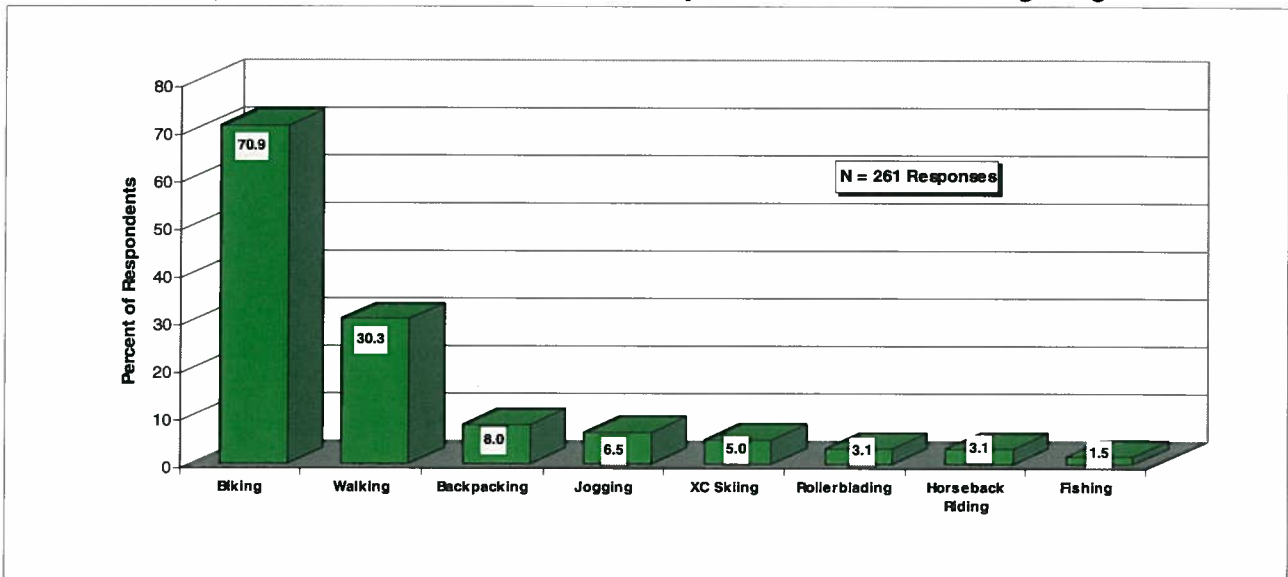


4. What is your primary activity on the trail? (Circle all that apply.)

- Walking/Hiking
- Biking
- Jogging
- Rollerblading
- Horseback Riding
- Backpacking
- Fishing
- Cross Country Skiing/Snowshoeing

To determine what activity users most enjoy, survey respondents were questioned about their primary fitness activity while on the trails. Biking was, by far, the most dominant response to this question, encompassing almost three-quarters of survey respondents. Walking was the next most popular response, totaling almost one-third of respondents. Fishing included a small percentage of users, but this activity was not even included on the survey for Question #4, and was written in by a number of users, indicating strong interests in this recreational activity. Only a small amount of trail users rollerblade or go horseback riding along the surveyed trails.

Figure 7. Primary activities of trail users on the trail system within the Oil Heritage Region

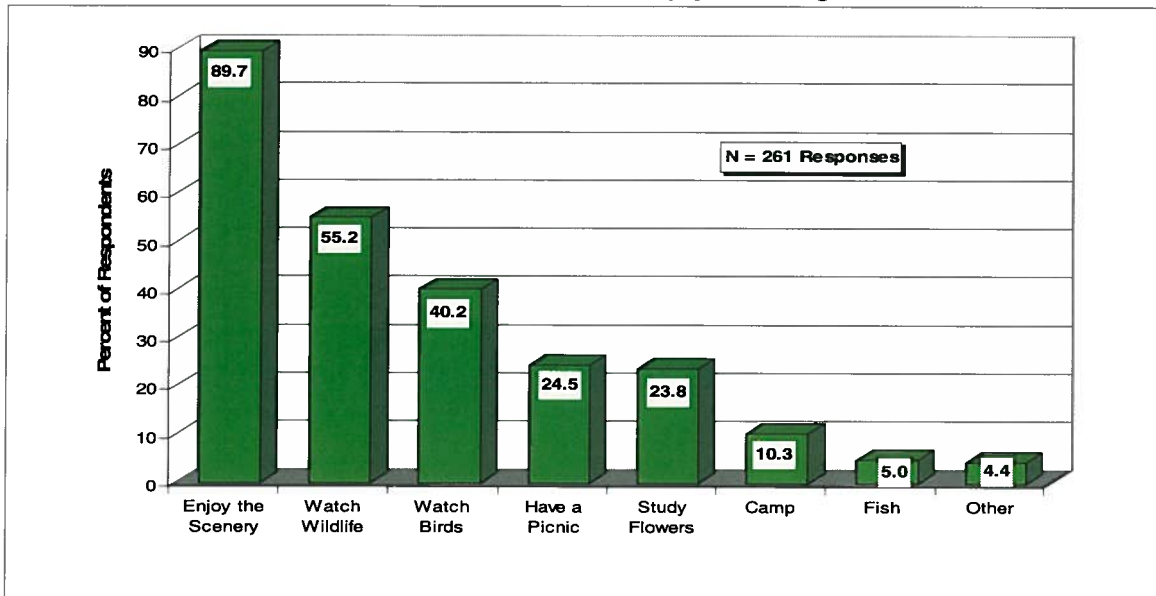


5. During your trail visit did you: (Circle all that apply.)

- Hunt
- Fish
- Canoe
- Kayak
- Camp
- Watch Birds
- Watch Wildlife
- Study Flowers
- Enjoy the Scenery
- Have a Picnic

Respondents were questioned about the types of recreation that they partake in to determine what the most popular recreational features are within the trail system within the Oil Heritage Region. The majority of trail users (90%) mostly enjoy the scenery along the trails. About half of the respondents indicated that they either observe wildlife or go birding. One quarter of the trail users enjoy a picnic and/or identify wildflowers, while on the trails. A small amount of the users (10%) go camping, while fewer users partake in hunting, fishing, canoeing, or kayaking.

Figure 8. Recreational attributes/leisure activities enjoyed throughout a trail visit



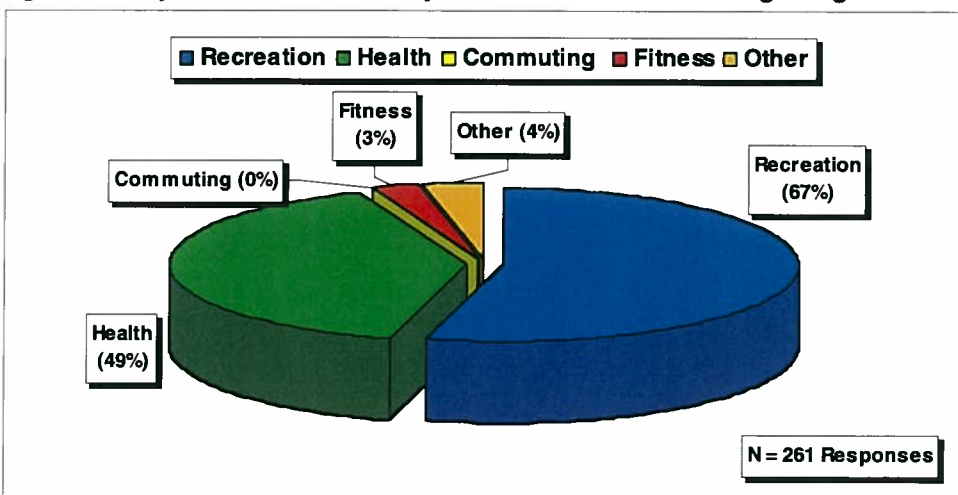
Note: Other = Canoe, Hunt, Kayak

6. Would you consider your use of the trail to be for: (Circle one response.)

- Recreation
- Health/Exercise
- Commuting
- Fitness Training (marathon, triathlon)
- Other (specify)

This question was generated to determine what drives people to actually use the trails. Two-thirds of respondents indicated their reasoning to be for recreation, while almost half stated that their reasoning was due to health benefits. Few trail users (3%) train for marathons or triathlons. None of the users indicated that their purpose for using the trails was for commuting. Since the Oil Heritage Region is rural, it would seem logical that utilizing the trail to commute to work would be highly unlikely.

Figure 9. Major uses of the trail system within the Oil Heritage Region



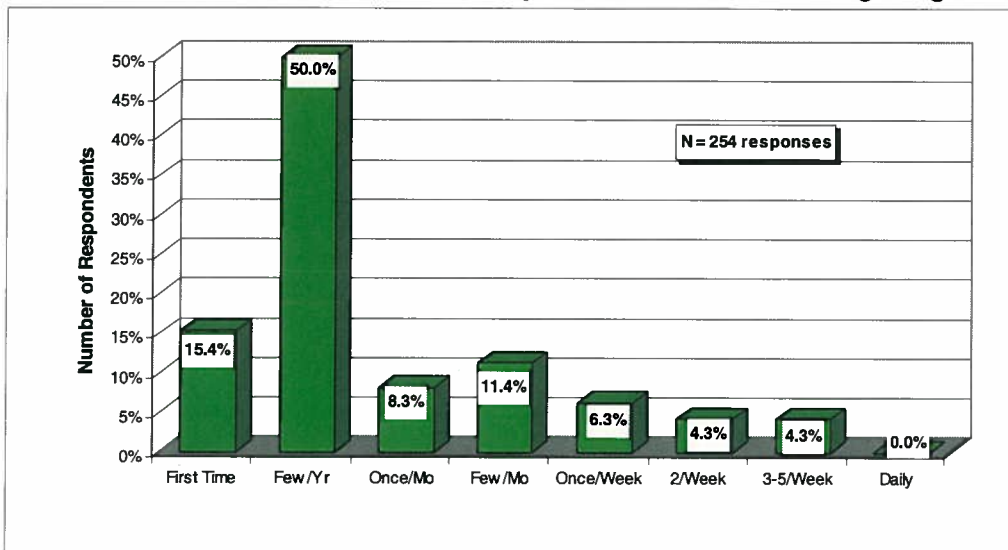
Visitor Profile

This section of the survey was generated to determine the frequency of use, effects of seasonality, and weekly usage patterns of the trail system. The number of first time users and the frequency of use by more established trail users aid in determining interest levels of the trails. Trail users were also asked to indicate how they discovered the trails, which shed some light on the best means of communicating the existence of the trails to draw in new users.

7. How often, on average, do you use this trail system?

- First Time
- A Few Times a Year
- Once a Month
- A Few Times a Month
- Once a Week
- 2 Times/Week
- 3-5 Times/Week
- Daily

Figure 10. Frequency of use of the trail system within the Oil Heritage Region throughout the year



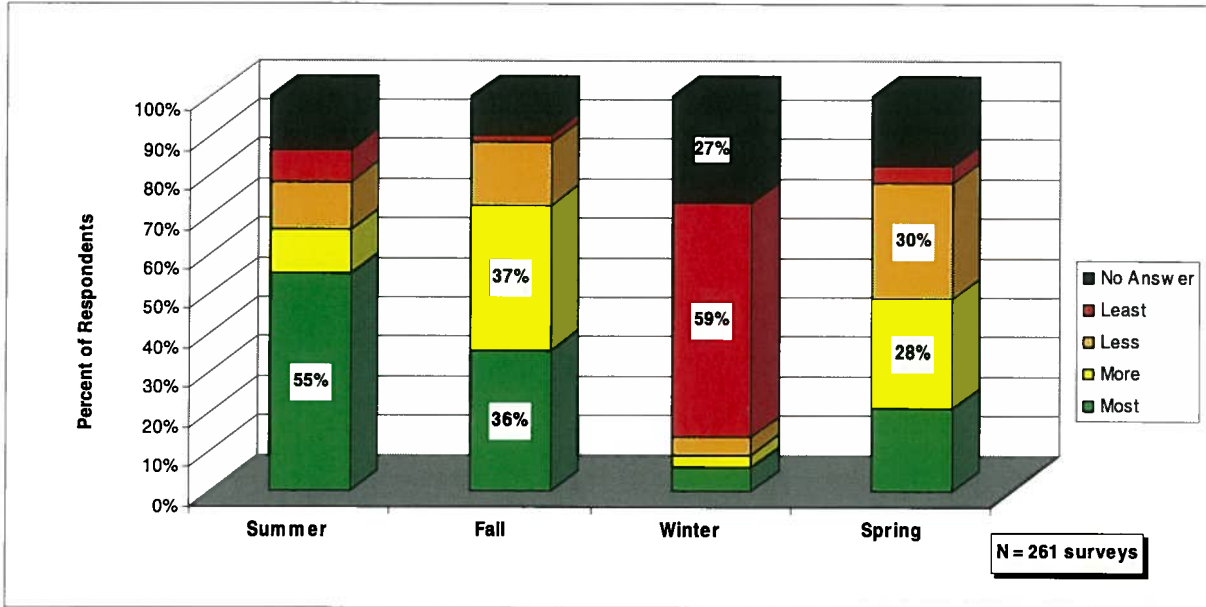
Over 15% of respondents indicated that this was their first time visiting the trail system within the Oil Heritage Region and many of these users indicated willingness to visit the trails again. However, over half of the trail users indicated that they only use the trails a few times a year. Approximately 15% of respondents utilize the trail at least once a week; and nobody stated that they used the trails daily.

8. Rank your trail usage by season from 1 to 4 (1=most, 4=least):

- Summer
- Fall
- Winter
- Spring

Users were asked to rate seasonal trail usage on a scale from one to four to determine the most popular trail season. Figure 11 displays various colors corresponding to the number rating scale (green=1, yellow=2, orange=3, red=4, black=no rating given). Fall and summer were the most popular seasons to utilize the trail, followed by spring, and then winter. Over three-quarters of trail users rated fall with either a “1” or “2” in terms of use. Summer displayed the highest number of “1s” as its rating, but only a small portion of “2s”. Spring was relatively split in terms of use. Winter was a very unpopular season for trail use. The majority of trail users indicated that least amount of trail use in the winter season by rating it a “4”, and another one-third of respondents did not even rate the season.

Figure 11. Seasonal Usage of the trail system within the Oil Heritage Region

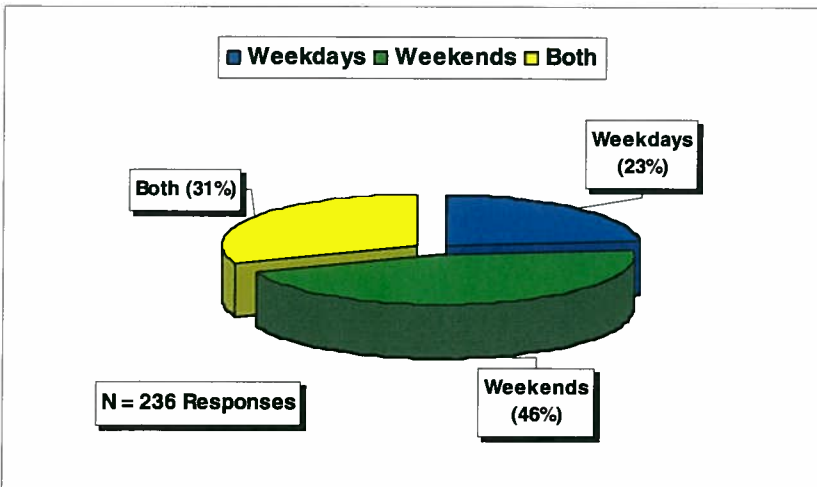


9. Generally, when do you use the trail? (Circle one response.)

- Weekdays
- Weekends
- Both

Users were asked to identify when they were on the trails to determine the weekly usage patterns. Weekends were the most popular times to visit the trails followed by the combination of both weekend and weekday use. Only one in five respondents stated that they use the trails exclusively on weekdays.

Figure 12. Weekly Usage Patterns

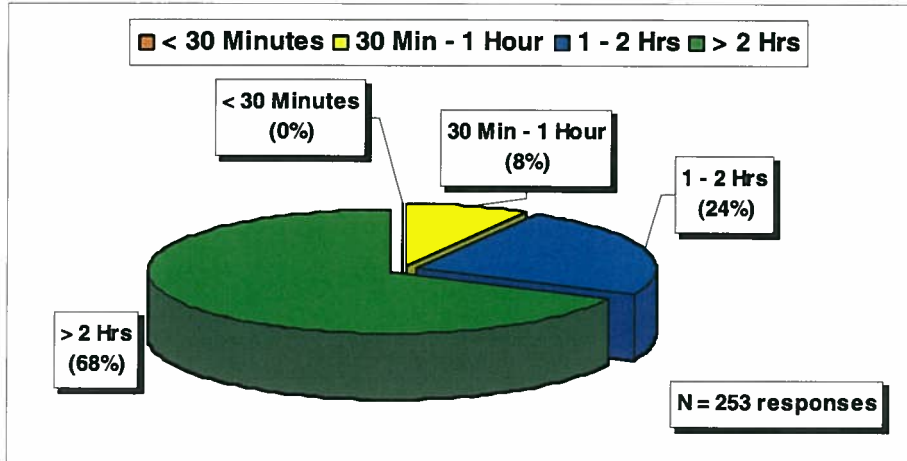


10. How much time do you generally spend on the trail each visit? (Circle one response.)

- Less than 30 minutes
- 30 minutes to 1 hour
- 1 to 2 hours
- More than 2 hours

To determine the intensity of trail use, trail users were asked to choose the amount of time that they spend on the trails during a typical trail visit. The majority of trail users enjoy the trails for greater than two hours at a time (68%) and no one indicated their trail use to be under 30 minutes. Thus, when people visit the trails, they often stay for significant periods of time.

Figure 13. Average usage time while visiting the trail system within the Oil Heritage Region

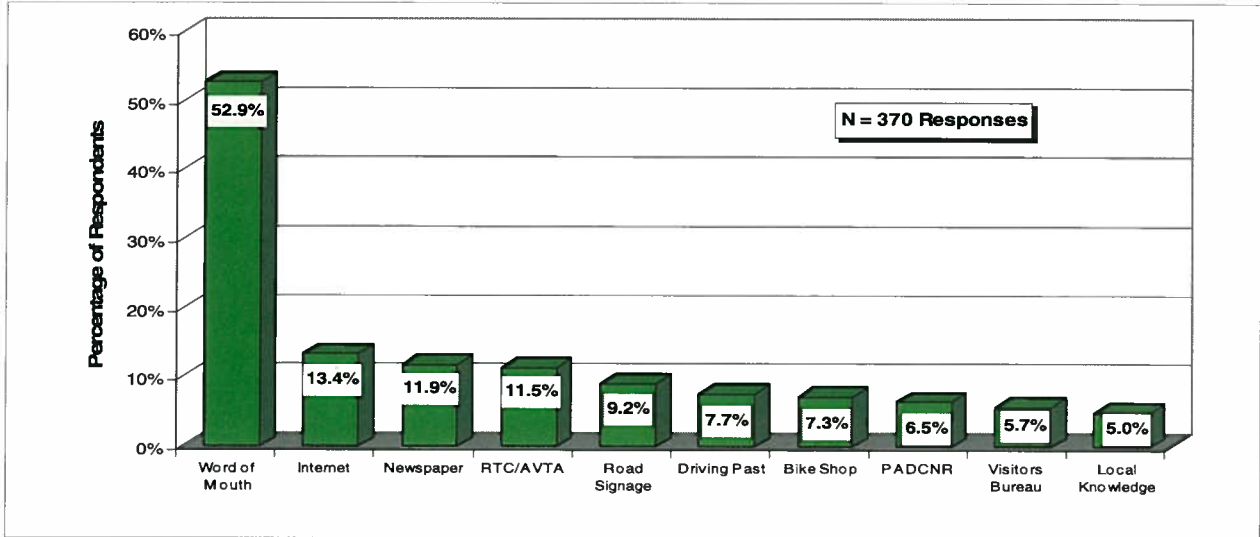


11. How did you find out about the trail? (Circle all that apply.)

- Word of Mouth
- Roadside Signage
- Driving Past
- Newspaper
- PADCNR
- Bike Shop
- Information from RTC
- Visitors Bureau
- Internet Website (specify organization)
- Other (specify)

Users were asked to indicate which of the following communication means were used to discover the trail system within the Oil Heritage Region. By far the most typical form of obtaining knowledge of the trails' existence was via word of mouth. The internet and newspaper were also fairly successful in providing information about the trails.

Figure 14. Different means of advertisement for the trail system within the Oil Heritage Region



Expenditures

This section of the survey was implemented to gain insight into how the Oil Heritage Region is economically impacted by trail users visiting the area. Thus, trail users were asked to indicate the types of accommodations that they stayed in and their spending habits in the region.

12. Is the trail system a main reason for this trip to the Oil Heritage Region?

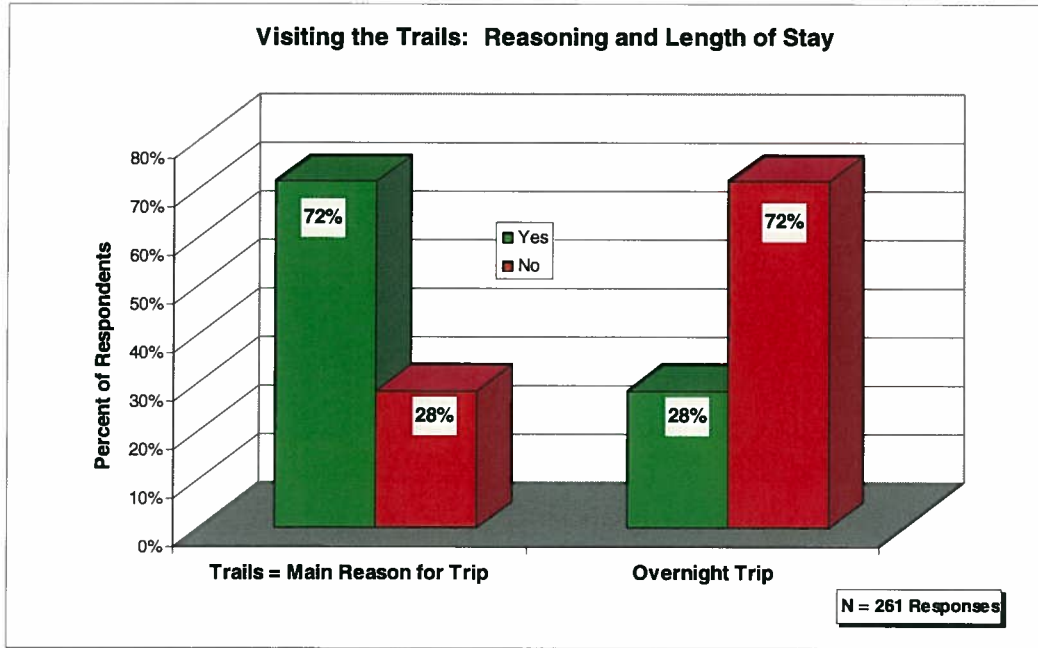
- Yes
- No

13. Is your visit to the Oil Heritage Region an overnight trip away from home?

- Yes
- No

The majority of trail users (72%) indicated that the trails were the main reason for the trip to the area. Since only 20.5% of the trail users reside in the Oil Heritage Region, the trails serve as an important recreational asset in drawing non-local residents into the Oil Heritage Region. However, this same percentage of users also stated that their trip did not involve an overnight stay. Thus, most users utilize the trails and then return home or proceed to their next destination.

Figure 15. Visiting the trails: Reasoning and Length of Stay

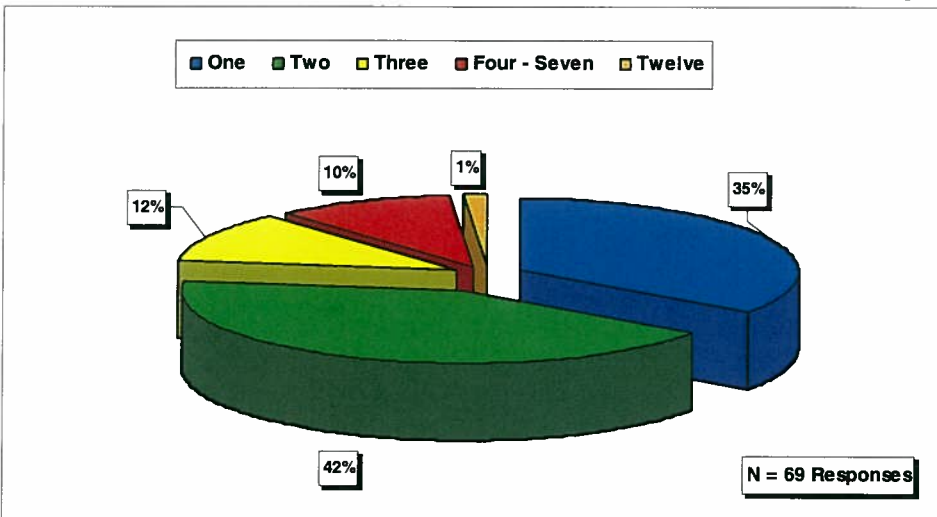


If your trip was an overnight was an overnight stay:

13a. How many nights will you be staying in the Oil Heritage Region? _____ nights

Of the 30% of respondents who indicated that their trip involved an overnight stay, the following stayed anywhere from one to twelve nights in the area. The average length of stay in the area was 2.24 nights, while the median length of stay was two nights.

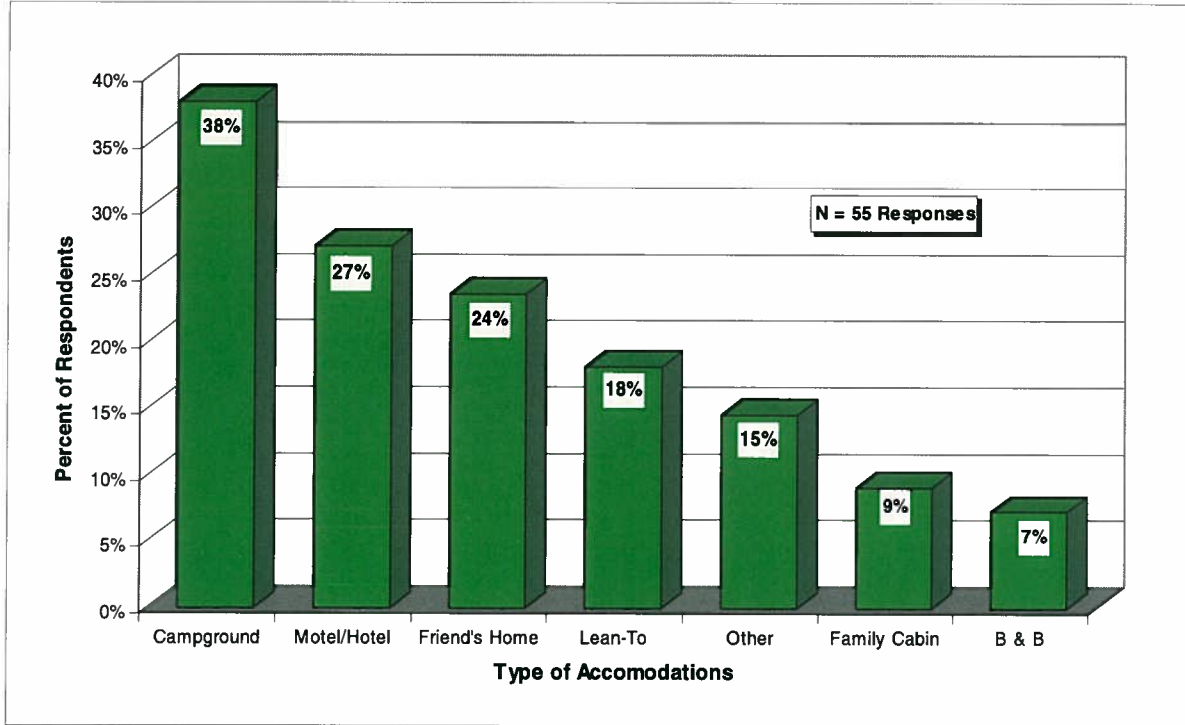
Figure 16. Number of nights per stay, while visiting the Oil Heritage Region



13b. What type of accommodation is your group staying in for the duration of your visit in the Oil Heritage Region?

- Motel/Hotel
- Bed & Breakfast
- Friend or Relative's Home
- Campground
- Other

Figure 17. Types of Accommodations Frequented by Trail Users



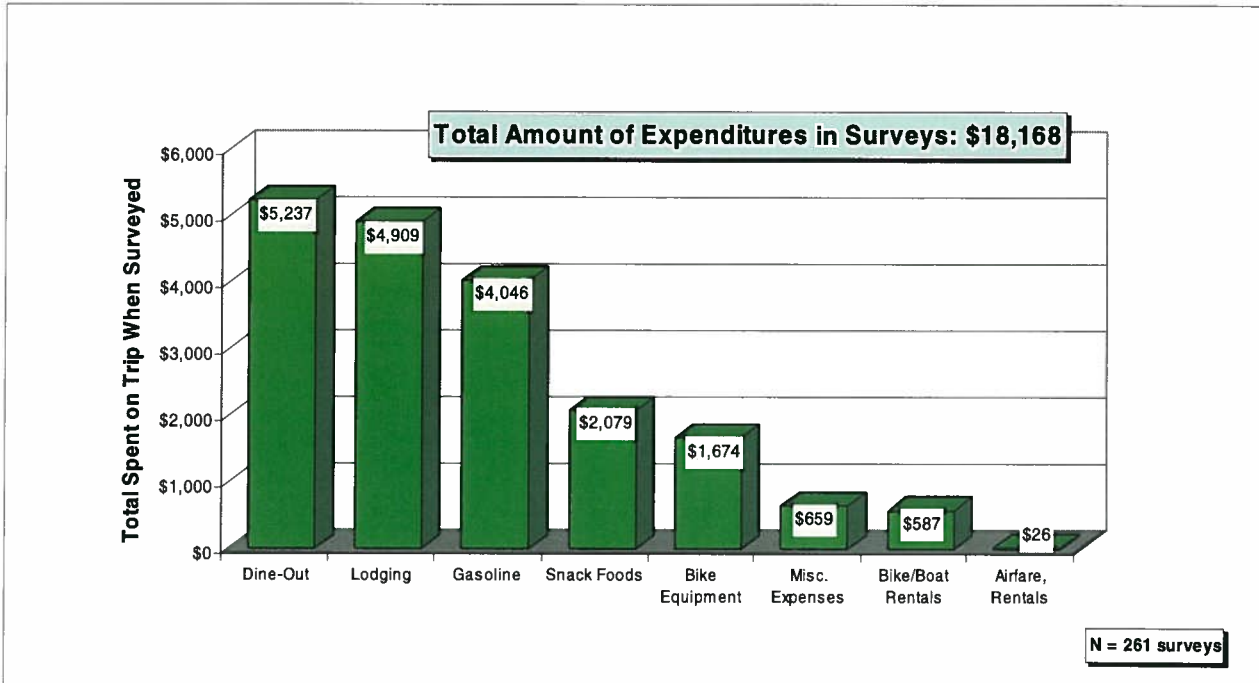
It was important to note what types of accommodations the trail users were residing in during their overnight trips to the Oil Heritage Region. Many trail users (30%) stayed in a campground. A quarter of trail users stayed in either a motel/hotel or a friend or relative's home. The Lean-To's located in Oil Creek State Park were also fairly popular, housing 20% of overnight trail users. Despite a considerable number of users staying in a hotel/motel, only a fraction of users stayed at a Bed & Breakfast (B&B).

14. What was/will be the total spending of your whole group in the Oil Heritage Region during your visit (or during your most recent visit) for the following categories?

Lodging:	\$ _____	Recreation Related:	
Food & Beverage:		Bike Rental	\$ _____
Foods/drinks consumed at restaurants or bars	\$ _____	Biking Equipment	\$ _____
Snack foods/groceries/ice cream/carry-out	\$ _____	Boat Rental	\$ _____
Transportation:		Any Other Expense:	
Gasoline, oil, repairs	\$ _____	Footwear, Clothing, Film, Etc.	\$ _____
Other (airfare, vehicle rental)	\$ _____		

Total trail-related expenditures were tallied for each spending category listed above for the trail user responses in the survey. Expenses were divided into categories to determine the types of spending performed by trail users; the categories were then totaled to obtain the impact of these expenditures on the Oil Heritage Region.

Figure 18. Trail-related expenditures by category of spending (during trip when surveyed)



Survey respondents spent a total of \$18,168 in the Oil Heritage Region during the study period. Overall, trail users spent the majority of their money on dining out and lodging. The greatest amount of total spending occurred in the “Dine-Out” category, which included any foods or drinks consumed at restaurants or bars in the area. “Lodging” was the second highest income generator for the area, followed by gasoline sales. “Snack foods” (including groceries/ice cream/carry-out) and “Bike Equipment” also brought in a fair amount of money by trail users.

Because non-local users and local users often have different types of expenditures, the survey group was further studied for spending habits within the Oil Heritage group versus the non-local users group. Table 8 displays the overall expenditures of the two user groups. Table 9 goes into further detail to display the various expense categories and how much was spent by each user group.

Table 8. Oil Heritage User vs. Non-Local User: Daily Expenditures

Type of User	# of Groups	# of Users	Total \$	Avg \$/Group	Avg \$/User	Median \$/Group
Oil Heritage Residents	50 (19%)	147 (21%)	\$545.27	\$10.91	\$3.71	\$0.00
Non-Local Users	211 (81%)	567 (79%)	\$18,672.10	\$88.49	\$32.93	\$35.00

Oil Heritage users were categorized according to their zip code response that was illustrated in Question 1 of the survey responses. Non-local users were then considered to be all other users that were not residents of this defined region. Oil Heritage residents encompassed 21% of total users and 19% of total surveys (groups) that were submitted, while non-local users totaled 79% of total users and 81% of submitted surveys (groups). Naturally, the local (Oil Heritage) users spent much less while visiting the trails than the non-local users. Oil Heritage resident trail users spent, on average, \$3.71 daily per person, while non-local users spent, on average, \$32.93 per person.

Table 9. Oil Heritage User vs. Non-Local User: Types of Expenditures

OIL HERITAGE USERS				NON-LOCAL USERS			
Expenditure	Avg/User	Avg/Group	Total	Expenditure	Avg/User	Avg/Group	Total
Restaurants/Bars	\$1.80	\$5.30	\$265.00	Restaurants/Bars	\$8.77	\$23.56	\$4,972.00
Bike Equipment	\$0.48	\$1.40	\$70.00	Lodging	\$8.64	\$23.21	\$4,898.00
Gas	\$0.44	\$1.29	\$64.27	Gas	\$7.02	\$18.87	\$3,982.00
Snack Foods	\$0.39	\$1.16	\$58.00	Snack Foods	\$3.56	\$9.58	\$2,021.10
Other Exp	\$0.35	\$1.02	\$51.00	Bike Equipment	\$2.83	\$7.60	\$1,604.00
Other	\$0.18	\$0.52	\$26.00	Other Exp	\$1.07	\$2.88	\$608.00
Lodging	\$0.07	\$0.22	\$11.00	Boat Rental	\$1.00	\$2.69	\$567.00
Bike Rental	\$0.00	\$0.00	\$0.00	Bike Rental	\$0.04	\$0.09	\$20.00
Boat Rental	\$0.00	\$0.00	\$0.00	Other	\$0.00	\$0.00	\$0.00
Total	\$3.71	\$10.91	\$545.27	Total	\$32.93	\$88.49	\$18,672.10

The types/amount of expenditures that were performed by both Oil Heritage users and non-local users is displayed in Table 9. Oil Heritage users claimed to spend most of their money, by far, on restaurants and bars, while visiting the trails. This expenditure category made up almost half of the average amount spent per user. Non-local user spending habits were geared predominantly toward restaurants/bars, lodging, gas, snack foods, and bike equipment, respectively.

Since a much larger group of visitors was estimated to be on the trails than those who were surveyed, the overall economic impacts were much greater than \$18,168 for the region. In order to determine the overall economic impacts, the 21% of Oil Heritage users who spent an average of \$3.71 per person and 79% of non-local users who spent an average of \$32.93 were incorporated into the trail user estimates.

$$\text{Study Period} = \{[(82,930 \text{ users}) \times (21\%) \times (\$3.71/\text{user})] + [(82,930 \text{ users}) \times (79\%) \times (\$32.93/\text{user})]\}$$

$$= \$2,222,010$$

$$\text{Year of 2006} = \{[(160,792 \text{ users}) \times (21\%) \times (\$3.71/\text{user})] + [(160,792 \text{ users}) \times (79\%) \times (\$32.93/\text{user})]\}$$

$$= \$4,308,229$$

An estimated 82,930 users who visited the trails between July and October, created an economic benefit of over \$2.22 million for the region. This impact extended throughout the whole year is estimated to be almost \$4.31 million due to an estimated 160,792 users frequenting the trails in 2006.

This number also does not include personal incomes generated due to employment. Nor does this question include the intrinsic values and benefits that the trails bring to the region, such as recreational, scenic, and health benefits. Therefore, even though this number is substantial, its economic benefits of the trails run much deeper than simply generated revenues.

Demographic Information

This section collected information on the characteristics of people utilizing the trails. Age, gender, employment status, and income questions were all included in this portion of the survey questionnaire.

15. What is your age?

A. 15-25

C. 36-45

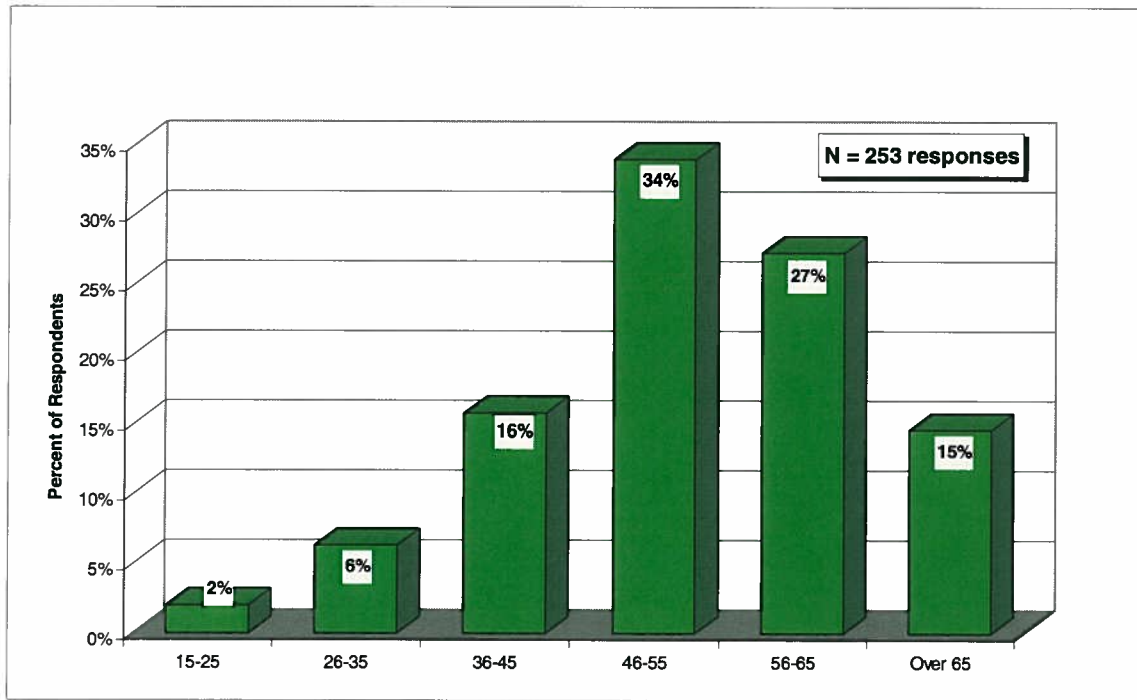
E. 56-65

B. 26-35

D. 46-55

F. Over 65

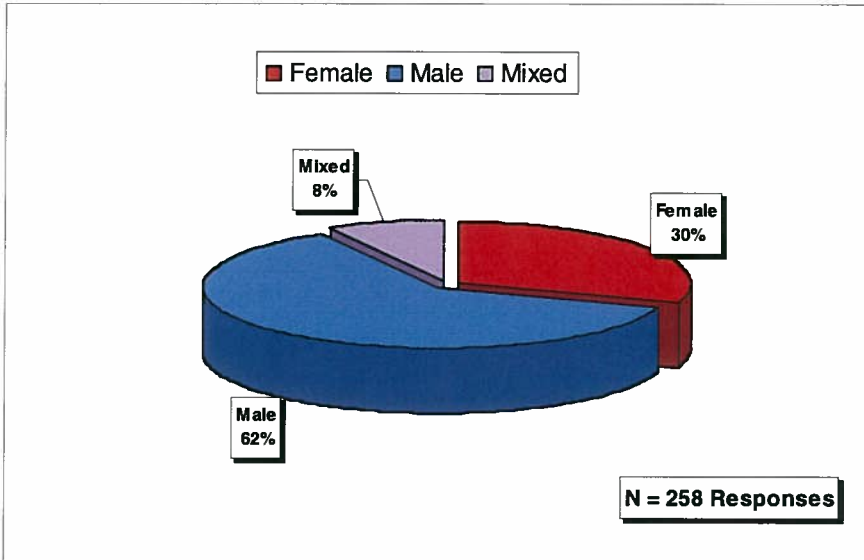
Figure 19. Age of Respondent(s)



The distribution of ages of trail uses was weighted heavily on the middle-aged to elderly cohort encompassing three-quarters of the crowd. Trail users were predominantly middle-aged, with only a small portion of trail users who were under 36 years old. Only 8% of the respondents indicated that they are 35 years or younger.

16. What is your gender? A. Female B. Male

Figure 20. Gender of Survey Respondents



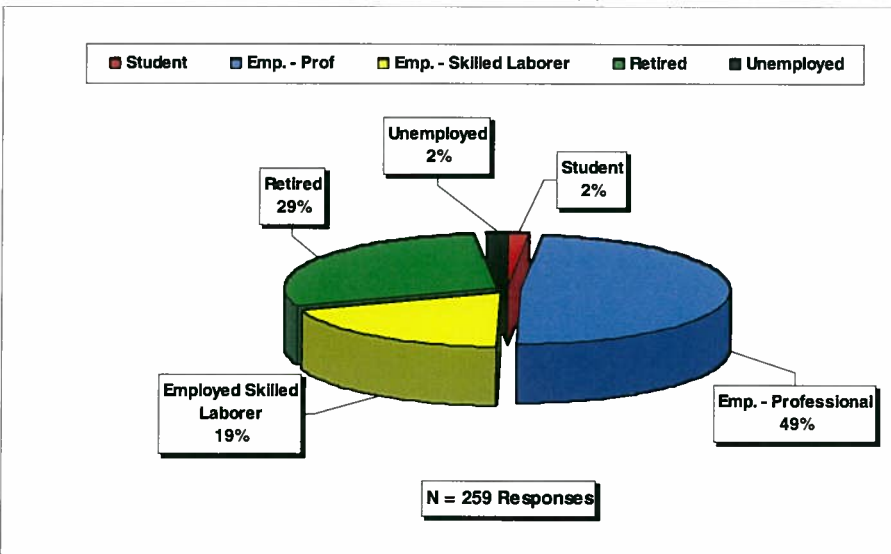
Note: Mixed = survey respondent noted both men and women present in group

The majority of respondents (62%) indicated that they were male, while only 30% indicated they were female. However, it is difficult to ascertain whether more males utilize the trails, or rather, if more males would fill surveys out on behalf of their user group. Thus, one cannot assume that more males frequented the trails, only that more men filled out the surveys and indicated their gender, even in the presence of a mixed-gender group.

17. What is your employment status?

- A. Student
- B. Employed – Professional
- C. Employed – Skilled Laborer
- D. Retired
- E. Not currently working

Figure 21. Employment status of respondent(s)



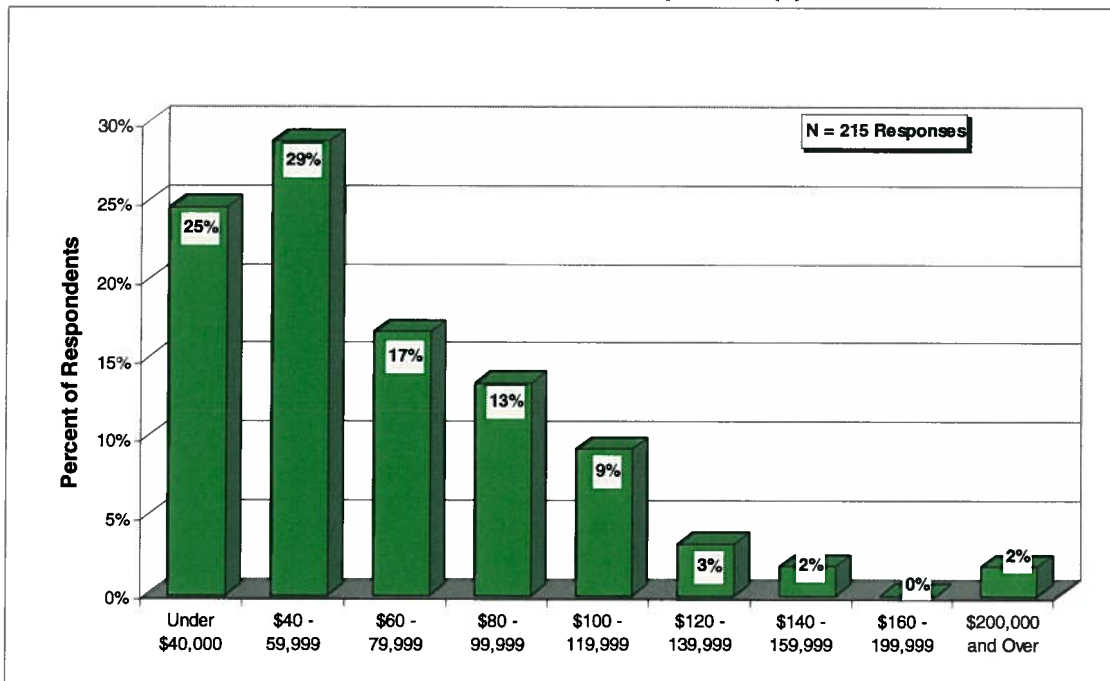
Trail users were asked to identify their employment status. Almost half of the trail users indicated that they were employed in the professional sector, while another 30% indicated that they were retirees. Thus, an older, more educated crowd tends to frequent the trails.

18. What is your annual pre-tax household income?

- A. Under \$40,000 D. \$80 – 99,999 G. \$140 – 159,999 J. \$200,000 and over
- B. \$40 – 59,999 E. \$100 – 119,999 H. \$160 – 179,999
- C. \$60 – 79,999 F. \$120 – 139,999 I. \$180 – 199,999

Trail users were asked to identify their level of pre-tax household income in order to gain some insight on the purchasing power of the trail user. This question was the most frequently omitted question in this section, because some users felt that the level of income earnings was private and they did not feel comfortable revealing that information.

Figure 22. Level of pre-tax household income of respondent(s)



However, those respondents who felt comfortable answered the question and provided a wide range of responses. Incomes included a variety of earning ranges, with the most popular response being those trail users who earn between “\$40 - \$59,000” annually. One-quarter of the survey respondents indicated that their household earnings was “Under \$40,000”, of which 25% were retirees. Almost 50% of trail users’ households earned anywhere from \$60,000 to \$200,000 annually.

Information about the Trail System

This was the final portion of the user surveys and was included to gain insight about the users' attitudes of the trail system within the Oil Heritage Region. This section also provided the user with the opportunity to add any additional comments or suggestions that were not able to be answered elsewhere on the survey.

19. Which trail(s) do you use throughout the year in the Oil Heritage Region? (Check all that apply.)

- Allegheny River
- Justus
- Two-Mile Run
- Sandy Creek
- State Forest at Kennerdell
- Oil Creek State Park
- Water Trail
- Other (specify)

Survey respondents were asked to indicate which trails they use throughout the year. Survey respondents could select more than one trail segment in terms of use. Therefore, the responses to this question were illustrated in two different manners. Figure 23A illustrates the number of times each trail segment was selected in comparison to the total number of available surveys (a total number of 261 surveys were submitted). Figure 23B illustrates the number of times that a trail segment was selected in comparison to the total number of selections that were made in all of the surveys (a total number of 715 responses/selections were made for this question in the 261 total surveys).

The four (4) most commonly selected trails were: the ART, the OCSP Bike Trail, the Sandy Creek Trail, and the Justus Trail, respectively to ascertain which trails were used most abundantly. The majority of surveys indicated that these trails were used throughout the year (Figure 23A). These four trails were cited as being used in 86% of the total number of responses (Figure 23B).

Figure 23A. Percentage of trail user response to each of the trail segments (total survey numbers)

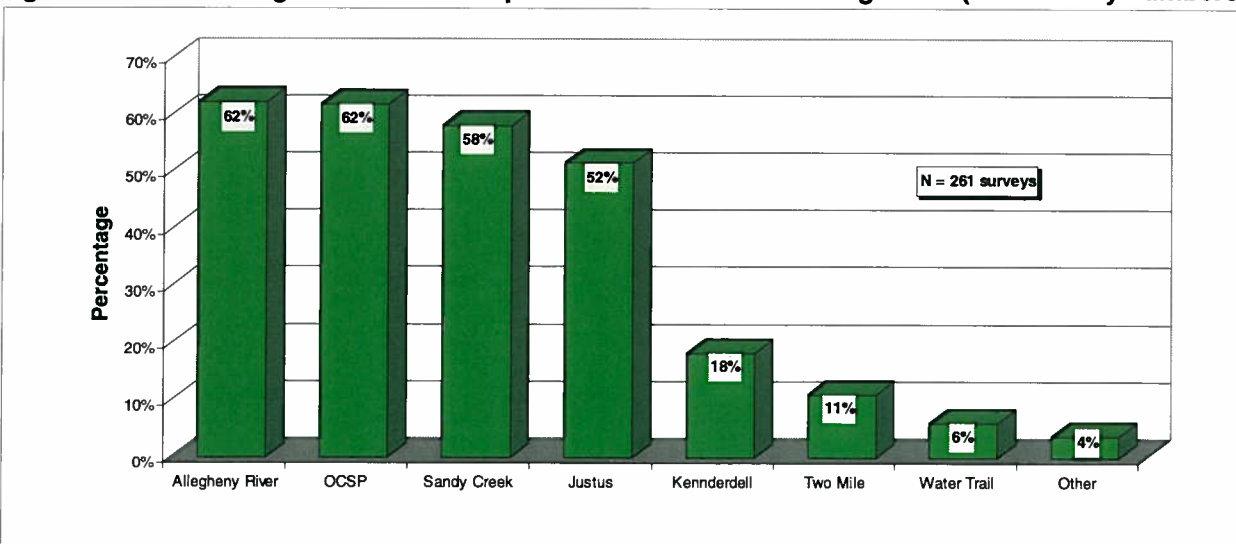
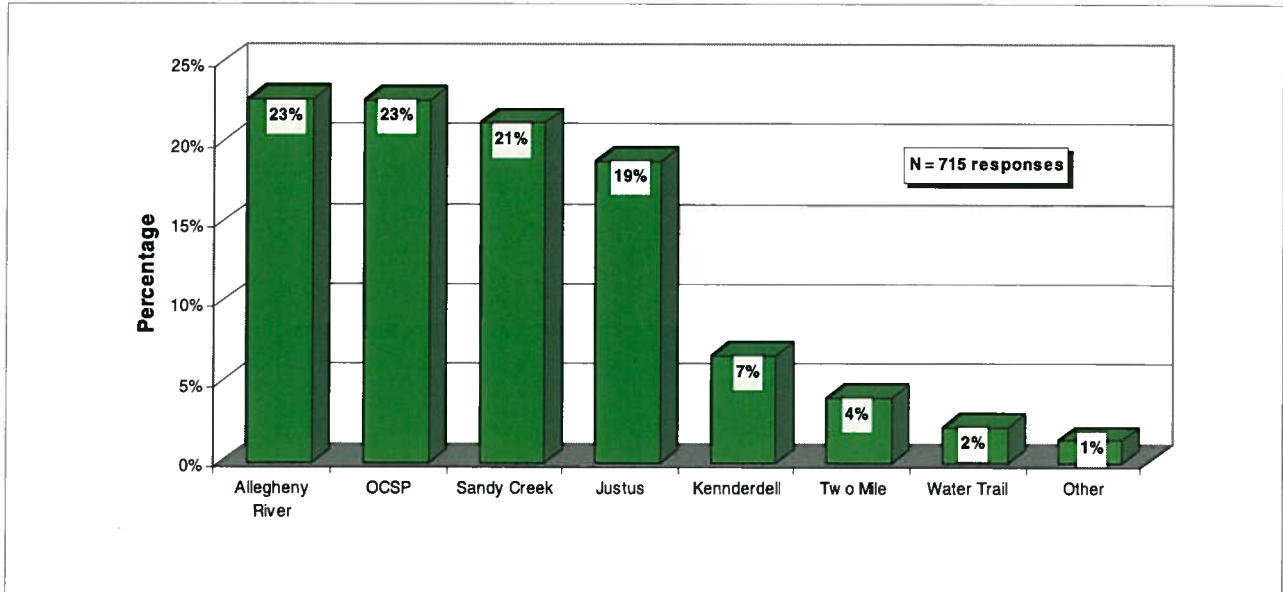


Figure 23B. Percentage of trail user response to each of the trail segments (total responses)



The Kennerdell State Forest Trail was the next most abundantly used, encompassing 18% of users, while the Two-Mile Run Trail received indications of usage from 11% of survey respondents. Even though most of the surveys were completed by greenway trail users, some users (7%) indicated that they also used the water trails.

20. Please rate the following in terms of importance to you and then current conditions (only if they apply).

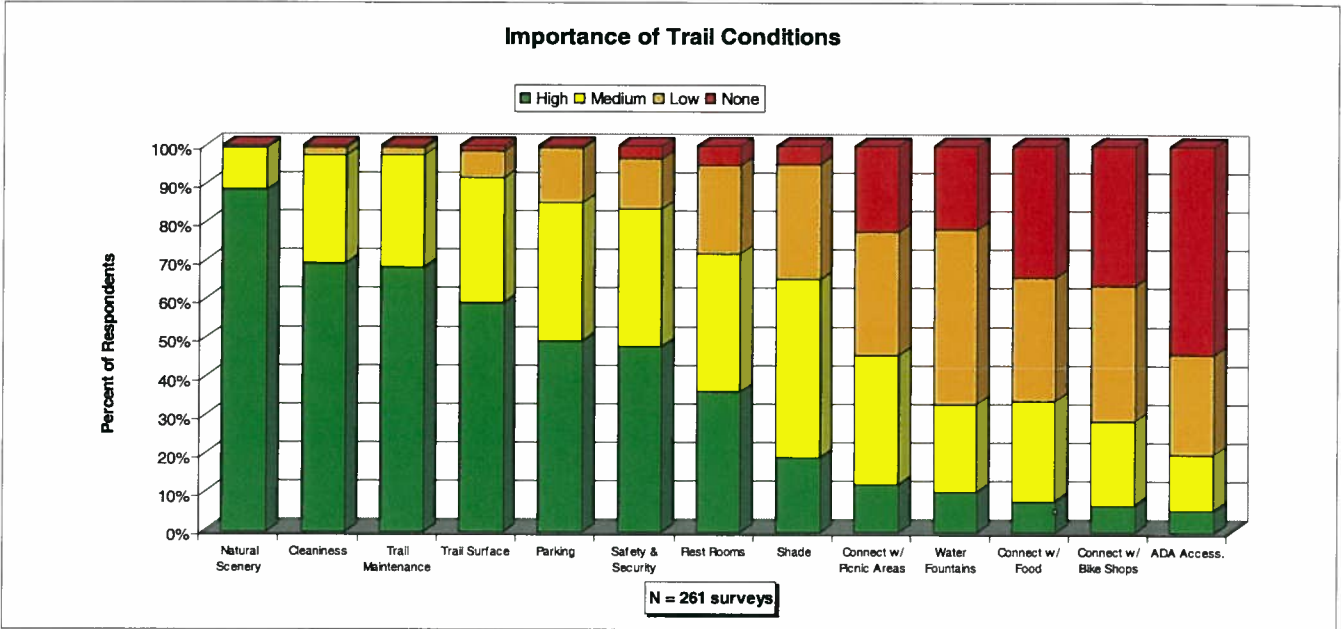
Recreation Attributes	Importance to you				Condition Today				
	High	Med	Low	None	Excel	Good	Fair	Poor	Non-Existent
1. Parking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Natural Scenery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Amount of Shade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Restrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Trail Maintenance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Water Fountains	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Safety & Security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Cleanliness of the Trail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Trail Surface	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. ADA Accessibilites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Connecting Paths to Restaurants/Lodging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Connecting Paths to Bike Repair Shops & Services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Connecting Paths to Picnic Areas & Snack Shops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Trail users rated recreational attributes within trail system in terms of importance and their opinion of its current condition. By asking for importance and condition, one is able to identify areas of concern to management. If a condition is rated as important and its current condition was rated as poor, then it would likely be an area worthy of both attention and concern. The importance of trail conditions was computed for the entire pool of answers of responses. The current trail conditions were computed for not only the entire trail way system, but also for the various trail segments. Thus, this will enable one to compare the conditions of each of the trail segments in order to assess successes and identify areas of improvement at a more detailed level

of study.

Figure 24 illustrates the users’ perspectives on the importance of the above mentioned trail conditions. The importance of trail conditions have been arranged in decreasing order from “High” to “None” in levels of significance to the user.

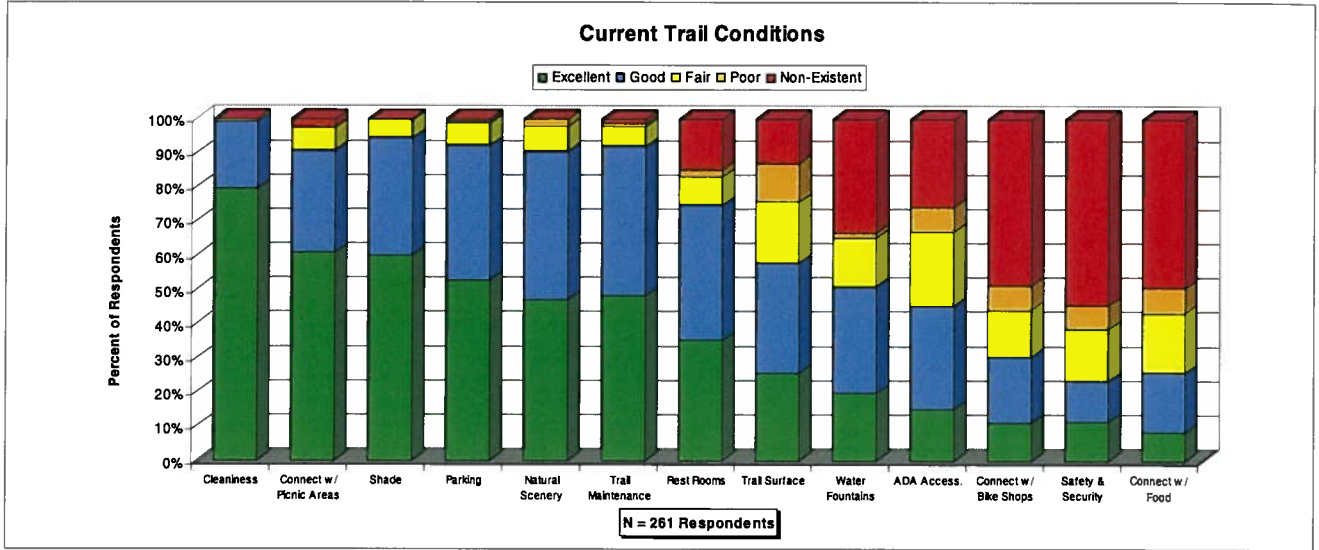
Figure 24. Importance of trail attributes (of the entire trail network in the Oil Heritage Region)



The quality of natural scenery, cleanliness, trail maintenance, and the trail surface were the most important recreational attributes. Whereas, the least important attributes were water fountains, connecting paths to restaurants/lodging, connecting paths to bike repair shops and services, and handicap accessible (ADA) trails. Thus, trail users are most interested in utilizing quality constructed trails, while enjoying the scenery of the area. They were not very concerned with accessing food places, lodging and shops.

Figure 25 illustrates the users’ attitudes toward current conditions on the trail system. Current conditions were arranged in order from “Excellent” to “Non-Existent”. The majority of trail users found most of the recreational attributes to be in either good or excellent condition. However, the following recreational attributes were cited as being rated as predominantly poor or non-existent along the trail system: ADA accessibility, connecting paths to bike repair shops and services, safety and security, and connecting paths to restaurants/lodging.

Figure 25. Current trail conditions (of the entire trail network in the Oil Heritage Region)



The following figures (Figure 26 – Figure 34) illustrate the responses of users’ attitudes toward current trail conditions of each of the greenway segments that were surveyed in the study, with the exception of Two Mile Run County Park. (No questionnaire data was available for this site.) These surveys were categorized by the coded location at which the trail users retrieved their surveys.

Figure 26. Current trail conditions of the Sandy Creek Trail (Belmar survey location)

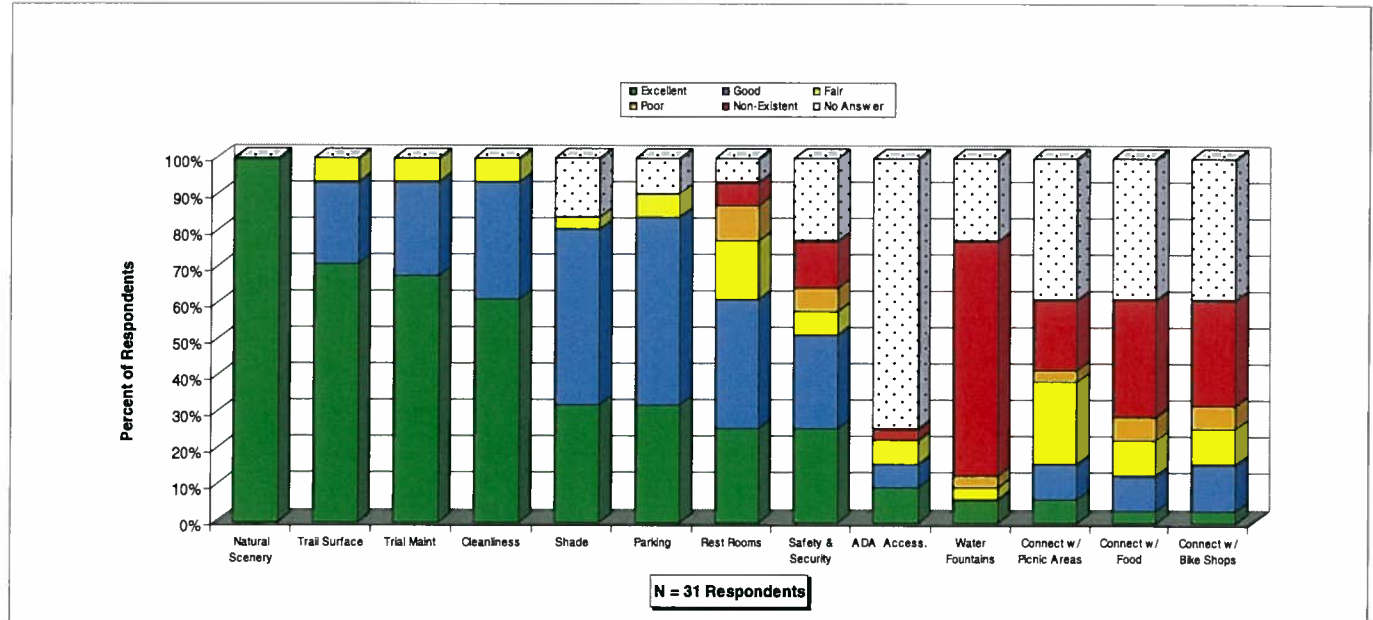


Figure 27. Current Trail Conditions of the Sandy Creek Trail

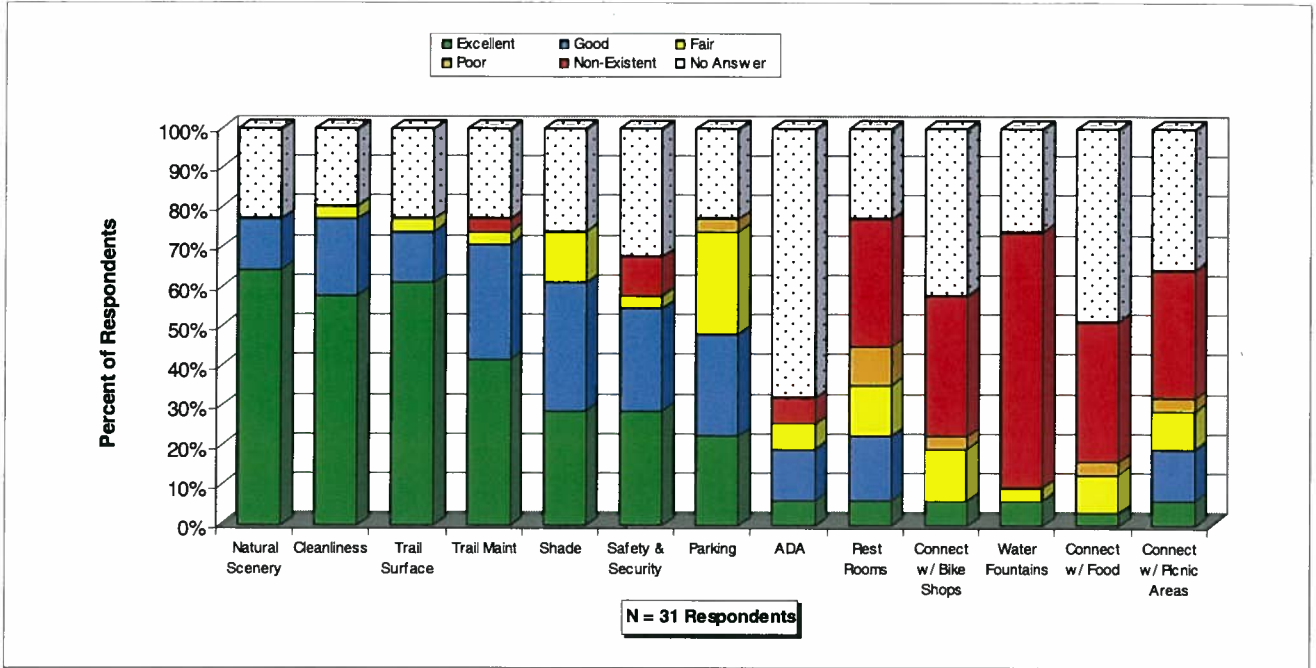


Figure 28. Current trail conditions of the OCSF Bike Trail

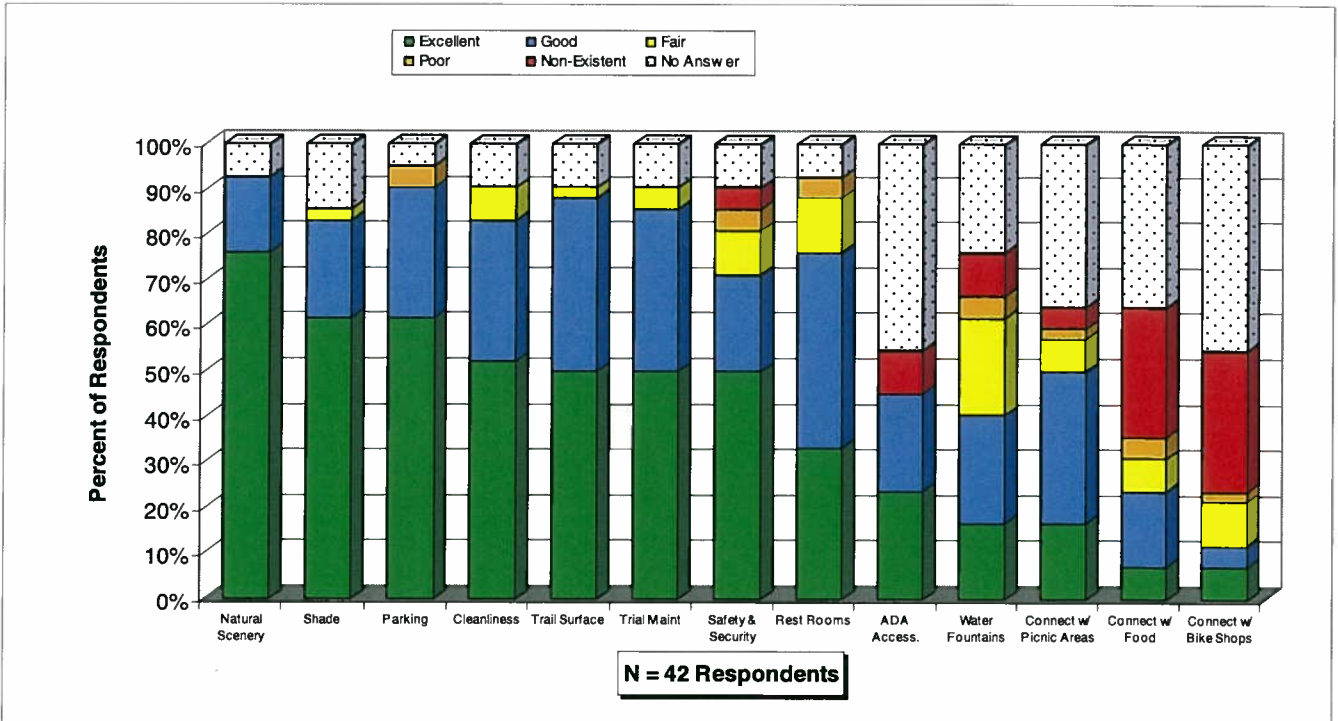


Figure 29. Current trail conditions of the Allegheny River Trail (Salt Box House Survey Location)

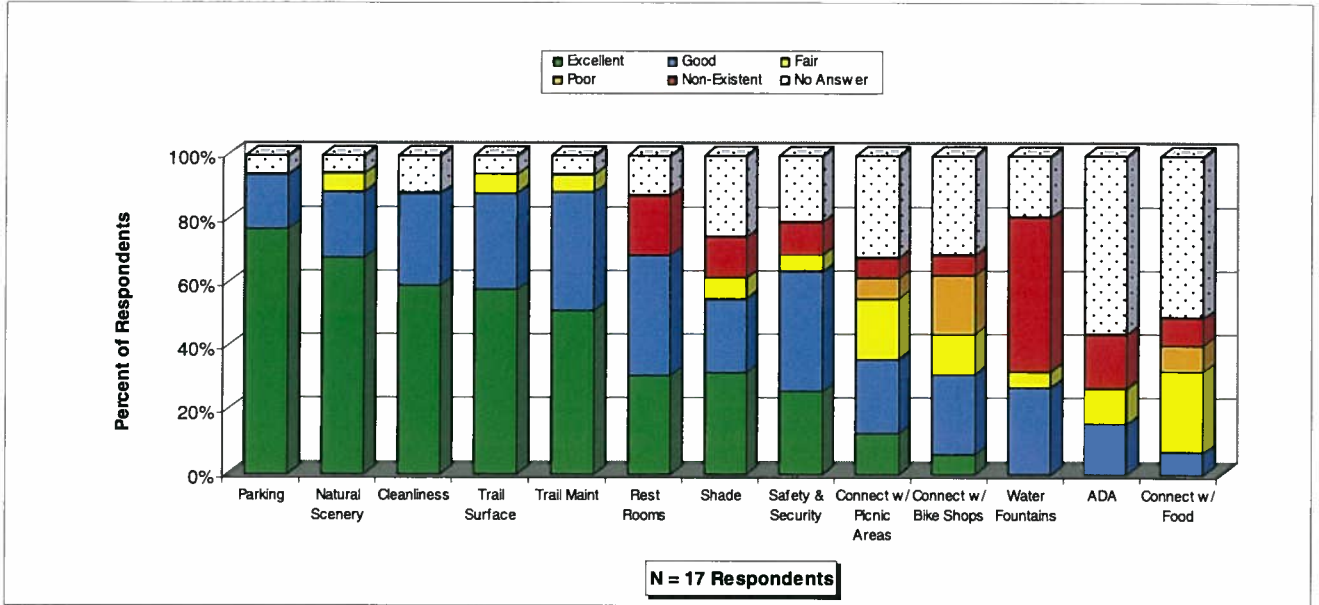


Figure 30. Current trail conditions of the Dennison Run Trailhead Parking Lot

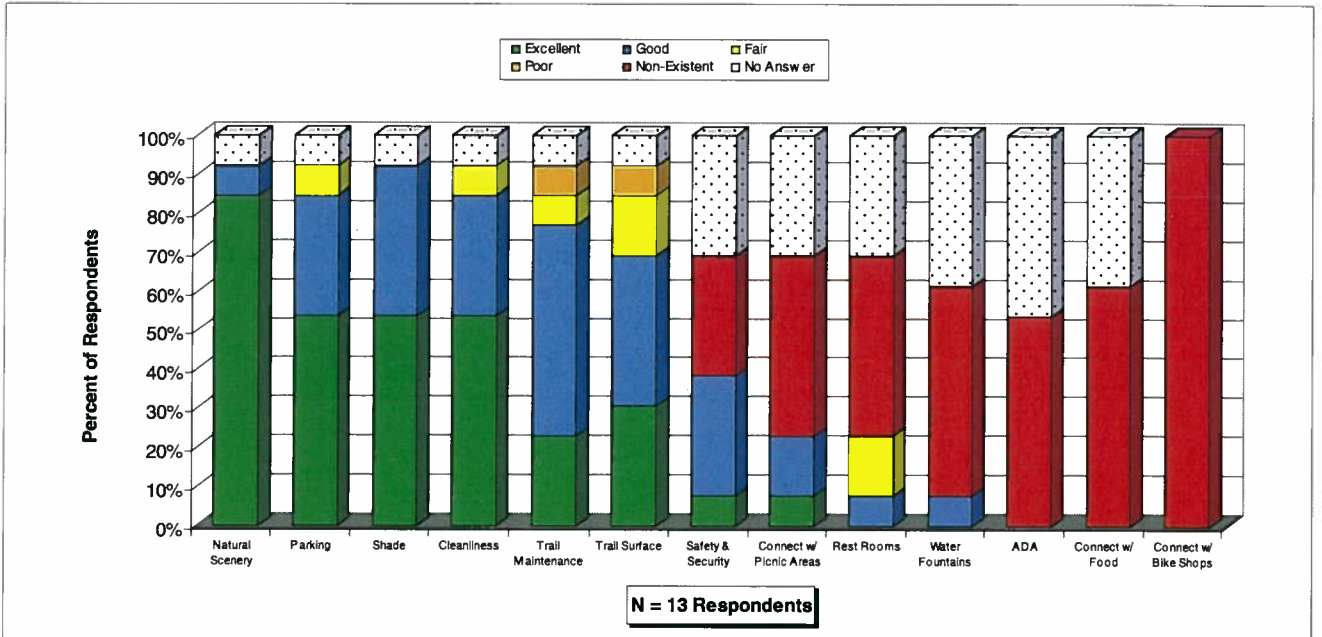


Figure 31. Current trail conditions OCSP Jersey Trailhead

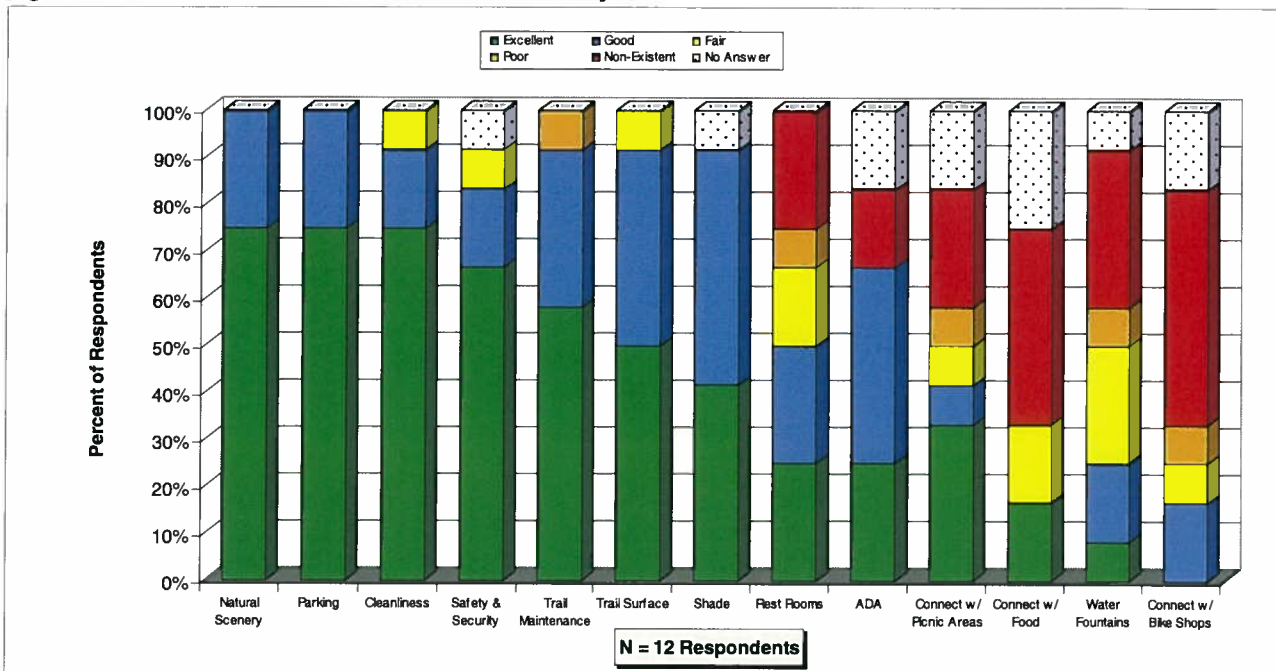


Figure 32. Current trail conditions at the River Trailhead at Kennerdell Bridge

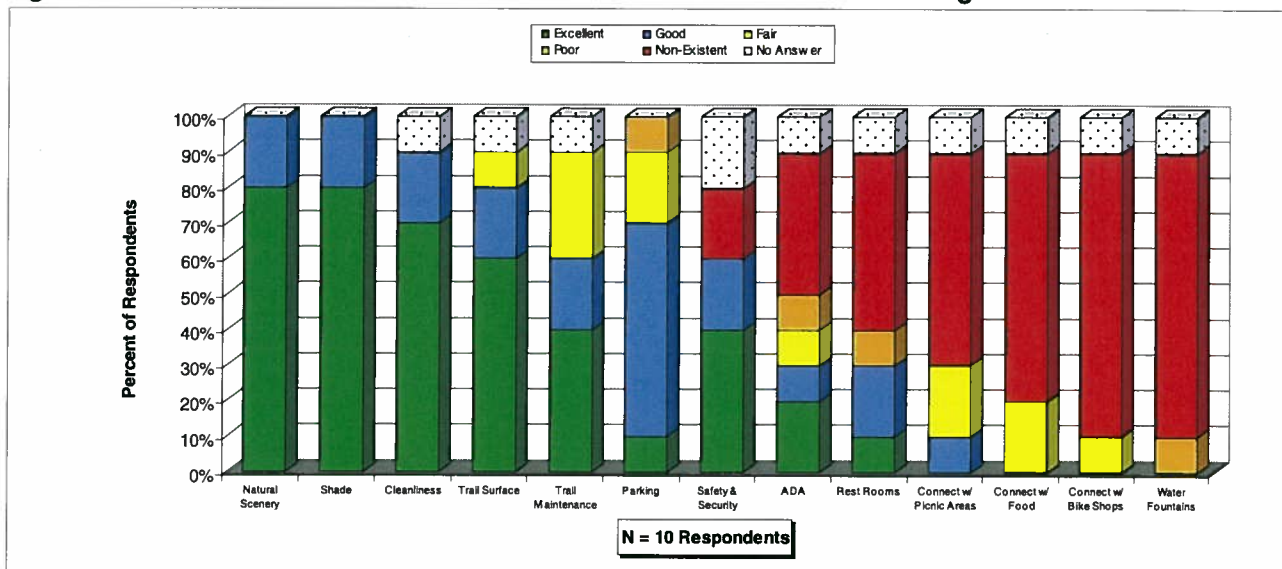
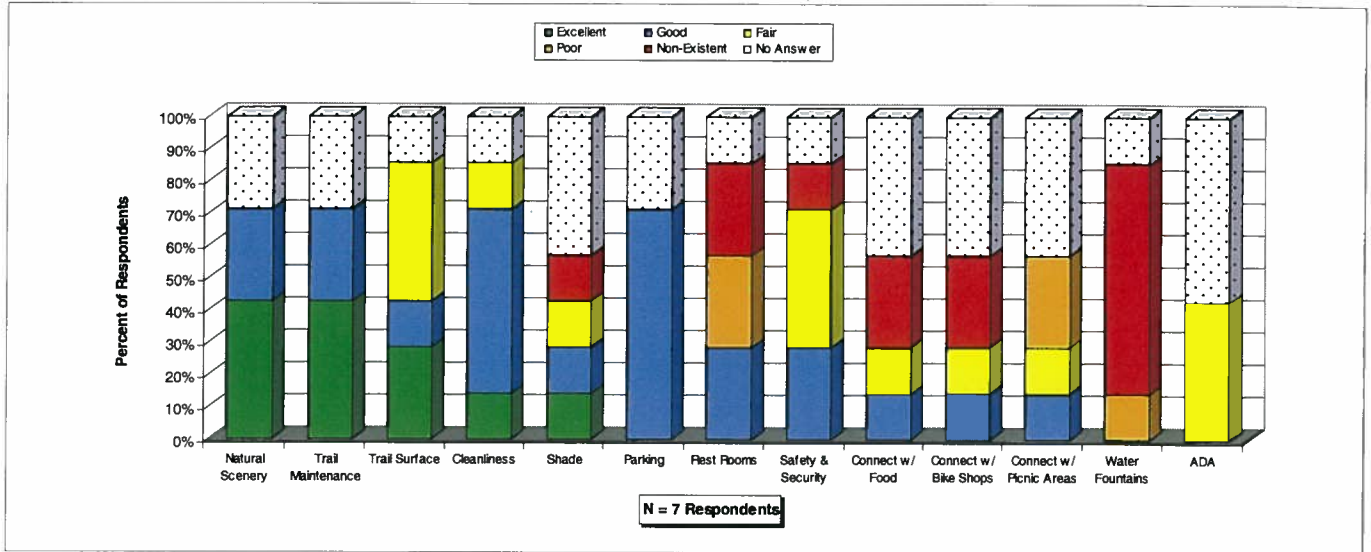


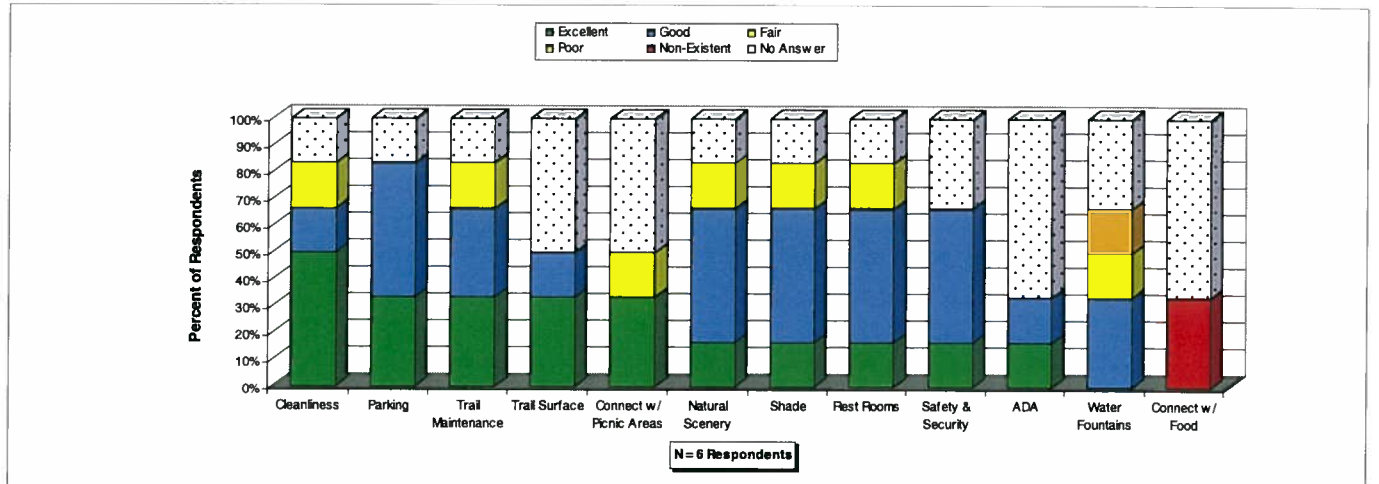
Figure 33. Current Conditions of the Justus Trailhead in Oil City, PA



Water Trails

The water trails were also surveyed on a limited basis throughout the duration of the trail utilization study. The following locations were selected to survey water trail users: Franklin boat launch, Oil City boat launches, Fishermen’s Cove, and OCSP boat launches/fishing areas. Surveys were also mailed to water trail users who participated in a fishing tournament in fall 2006 (the address list was provided by the ORA). Figure 34 illustrates the collection of water trail users’ perspectives of the recreational attributes current conditions. (All water trail survey locations were conglomerated due to the limited amount of survey data available.)

Figure 34. Current Conditions of the Water Trails

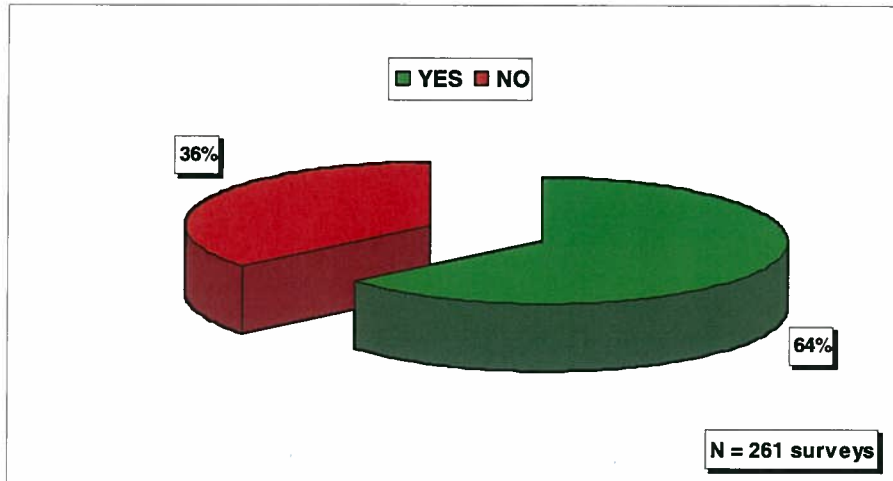


21. Would you be willing to give a donation to help maintain the trail?

- Yes
- No

Almost two-thirds of the survey respondents indicated that they would be willing to send a donation in order to maintain the trails. This is a significant number of users displaying economic interest in the future of the trail system. Several checks were sent along with completed questionnaires to the ORA.

Figure 35. Percent willing to send a donation to maintain the trail system



22. We hope you had an enjoyable outing in the Oil Heritage Region trail system. Please list other comments/suggestions to help us improve your next visit.

This question gave trail users the opportunity to add any additional significant information that they deemed necessary. Many trail users wrote praise of the trails, while also citing trail features that they hoped to see in the future. Below is a brief synopsis of areas where trail users comment on both the positive features and those areas that may require improvement:

Positive Trail/Regional Attributes:

- Enjoy visiting in Pennsylvania because the Rail Trails are the best we have ridden on
- The trails in the Oil Region are our favorites in PA
- Wonderful area to recreation bike
- Would help volunteer with the trails
- Great trails for long distance running
- We loved the paved, peaceful trails
- We love these woods – great hiking

Areas of Improvement:

- More restrooms and benches
- More trail development
- Better signage
- More publicity
- More/better campsites
- More access points
- Stock more fish in fall
- Need more information for lodging

VI. BUSINESS SURVEYS

Gaining input from local businesses in the service industry in the Oil Heritage Region is another key portion of data in order to assess the economic impacts of the trail. Thus, various business interviews throughout the region were conducted via telephone interviews or by transmitting a faxed/mailed sheet to the business to fill out and send back to the study team. Bed & Breakfasts (B&Bs), bicycle dealers, boating companies, canoe rentals, campgrounds, trail construction contractors, hotels/motels, orthopedic physicians, realtors and appraisers, and park and recreational departments were contacted.

Campgrounds (N=1)

Trails that were noted to have impacts on the campgrounds were the ART, State Forest at Kennerdell, and OCSP Bike Trail. The trails draw in more out-of-state campers who are looking for trails. Also, increased revenues are produced, because trail users stay additional nights in the campgrounds. The campground business owner believes that the ORA and AVTA can benefit by working together to improve the economy of the area.

B&Bs (N=4)

Trails that were noted to have impacts on the B&Bs were the ART, Justus Trail, Two Mile Run County Park Trail, Sandy Creek Trail, and the OCSP Bike Trail. As far as increases in patronage, the impacts range from none to some increased business. No one believed that the trails brought increases in property values to their B&Bs. No problems with the trails or increases in use by local users were noted. Some B&Bs were involved with social events that occurred on the trails, but some believed there needed to be better publicity about the trails and B&Bs, so that they could better advertise themselves. One B&B noted 100% satisfaction with trail system.

Park and Recreation Departments (N=2)

Trails that were noted to have impacts on the parks were the OCSP, Titusville (OCSP at Jersey Bridge), Justus Trail, ART, and Water Trails. The park managers indicated that many people know of the bike trails. At one location, the park manager believes its visitors come to utilize the bike trail. The trails bring more people to the area and to the park. Bike rentals, food, and beverages were the main revenue generators. Also, the trails enable users to become more exposed to the history of the area, and often draw more people into the Drake Well Museum. The parks indicated that they were partners with the ORA and that with continued development of the trails, more money will be spent in the Oil Heritage Region.

Contractors (N=2)

Trails that were noted to have impacts on the contractors were the ART, Two Mile Run County Park Trail, and the OCSP Bike Trail. They also noted some effects due to revenue, which was also due to an increased amount of local residents frequenting the trails. They have no problems

with the trails and noted their overall satisfaction level as “good”. The contractors did not indicate that they were members of the ORA or AVTA.

Contractors experience the most notable impacts when receiving bids to actually construct and design the trails. Contractors were hired by the AVTA, OCSP, and Two-Mile Run County Park in order to perform these jobs. Contractors could generate large incomes due to the vast amount of trails that have been constructed throughout the Oil Heritage Region. The AVTA alone has received over \$6.5 million in grants and funds since 1991 in order to generate these trails. This money has supplied several contractors and engineering services with substantial contract awards throughout the duration of the trails’ existence.

Real Estate Companies (N=3)

Real estate companies are integral in trail studies to obtain information regarding increases in property values due to trails. Trails can affect property values and the general attractiveness of an area. Studies have shown that 70% of landowners felt that overall, an adjacent trail was a good neighbor, with positive impacts, such as getting in touch with nature, recreational opportunity, and health benefits. Furthermore, real estate agents often place an adjacent trail as a selling feature to a home. According to the article written by Gary Sjoquist, *The Economic and Social Benefit of Trails*, the majority of surveyed Minnesota homeowners (70%) believe that the property values are increased by recreational trails, or at the least that the trails have no impact on the prices. In addition, homes near Seattle’s most popular trail sold for an average of 6% more than other property in the area.

Trails that were noted to have impacts on the real estate companies were the ART, Two Mile Run County Park Trail, and the Sandy Creek Trail. Some economic impacts were indicated, such as the trails bringing recreational buyers to the market, due to property values adjacent to the trails and waterways steadily going up. An increase in sale prices was especially noted along the ART due to a strong demand for river/trail front property. Real estate companies generally felt informed about upcoming social events with the trails and had no problems with the trails. Overall satisfaction of trails ranged from “Very supportive” to “Excellent”. Some real estate companies were partners with the ORA, but not all indicated that they were.

VII. COMPARISON TO OTHER STUDIES

The following literature references were utilized in order to compare the trail utilization study of the trail system within the Oil Heritage Region to other similar and recent studies. By comparing other studies to the Trail Utilization Study: Analysis of the Allegheny Valley Trail System within the Oil Heritage Region, one can begin to gauge the progress made by the trail system in this region, highlight its advantages, and locate areas of improvement.

- 1) **2002 User Survey for the Pennsylvania Trail Alliance – March 1, 2003**
Prepared by: University of Pittsburgh – University Center for Social and Urban Research
Subject: Bike/Hike Trail

This study analyzed the use of the Allegheny Trail Alliance (ATA) system in western Pennsylvania from April 15 through November 15, 2002. A total of 5700 mail-in surveys were placed on vehicles at seven (7) different trailheads. Trail counters were also utilized in this study.

This study recorded a higher level of generated revenue with a total of \$7,262,939. However, it was calculated over a longer period of time and was set in a more urban area with a greater advantage for more local residents to access the trails. Even though the revenues generated were much higher, the trail system within the Oil Heritage Region brought in higher per capita revenues in comparison with an average person spending of \$8.84 per trip on the Pittsburgh area trails. The trail system within the Oil Heritage Region also had a greater amount of out-of state residents (22%) in comparison with the ATA study (10%). However, the average number of miles traveled to access the trails was greater (43.7 miles versus 33.25 miles) in this study than the Oil Heritage Region study.

2) PA Greenway Sojourn 2004 Participant Results – July 2004

**Prepared by: Trail Facts – A Service of Interactive Marketing Solutions
(Included in Sample Reports in PADCNR CD ROM)**

Subject: Bike/Hike Trail

The PA Greenway Sojourn was held in Northwestern PA (including some of the Oil Heritage Region) in July of 2004. Approximately 387 sojourners participated in the event, embarking on either 3-day or 6-day journeys throughout the area. The event contributed over \$159,000 to the economy, with meals totaling \$38,000 of that sum and accommodations another \$10,000. Due to the existence of the trail network within the Oil Heritage Region, an economic benefit resulted for the communities of this area.

Due to this large scale event, many bike enthusiasts frequented the trails from all over the country, resulting in differing types of users and economic impacts than what was noted in our 2006 study of the region. For example, less than half of the sojourners were Pennsylvania natives, in comparison to the 2006 study, which displayed that over three-quarters of the trails users were from PA. The sojourn drew in users from multiple states in various regions (many out-of-state users were from either Ohio or New York in the 2006 study.) Word of mouth placed much less influence on the crowd attending the event (only 11% learned of the event via this method in comparison to 53% in the 2006 study). Most of the sojourners were rails-to-trails members. Thus, this organization was responsible for recruiting over 60% of the sojourners to the event (in comparison to 11% in our 2006 study).

There were also varying characteristics in user demographics. Over one-third of the sojourners had a household income of greater than \$100,000 annually, whereas the 2006 study only had 16% of trail overnight guests earn greater than this amount. Many more users stayed in a hotel than a campground in this study (57% and 15.84%, respectively), in comparison to the 2006 study which had the greatest number of users stay in

campgrounds (38%).

3) **The Washington and Old Dominion Trail: An Assessment of User Demographics, Preferences, and Economics – December 9, 2004**

Principal Investigators: USDA Forest Service

University of Georgia

Subject: Mixed Use Trail Study, including Bike/Foot/Horseback

A study was conducted from May 2003 through April 2004 on the Washington and Old Dominion Trail, which is a 100' wide, hard surfaced transportation and multi recreational corridor in Northern Virginia. The study recorded 1,707,353 adult visits, with only 5.24% of those visitors being from outside the Virginia area (22% of trail users were out-of-staters in our study). The two largest age cohorts were 36-45 and 46-55, which was consistent with our study. The average group size was 1.57, and most frequented the trails alone (average group size was 2.78 and most frequented the trails with another user in the Oil Heritage Region study). An average trip to these trails was worth between \$9 and \$14 per visitor, in comparison with the \$3.71 to \$32.93 range per visitor in our study.

Biking and walking were the most common fitness activities on these trails, which was similar to our study. However, 54% of trail users ranked the trails as a place to train for fitness events, which was rated much lower in the trail system within the Oil Heritage Region (3%). Season ratings also differed in that their trails were ranked: summer, spring, fall, winter. Fall was our most abundant trail use season, followed by summer. Natural scenery and trail maintenance ranked as #1 and #2 in importance and condition, which was relatively similar to our study. Health and recreation were important factors for using the trails in both studies. And, some equestrian use was also noted on these trails, as well as on the trail system within the Oil Heritage Region.

4) **Heritage Rail Trail County Park 2001 User Survey and Economic Impact Analysis – June 2002**

**Prepared by: Trail Facts – A Service of Interactive Marketing Solutions
(Included in Sample Reports in PA DCNR CD ROM)**

Subject: Bike/Hike Trail

The Heritage Rail Trail extends 21 miles in length from the Mason Dixon line (on the Pennsylvania-Maryland border) to York, Pennsylvania. It is a relatively new trail and was established in the late 1990's. A user survey and economic analysis was conducted for the trail in 2001 and 2002, with a total of 320 forms to analyze.

Since the trail is located in southeastern PA, most trail users were from that area. Almost two-thirds of users were from York County, while approximately 90% of users were PA residents in the southeastern sector of the state. The other 10% of users were from the Maryland-Virginia-DC area. (Our trail study consisted of 22% out-of-state users and only 23% of in-state users residing within the Oil Heritage Region.)

The usage patterns differed from those that were uncovered in this study. More than 45% of the users indicated that they frequented the trails at least once per week, in comparison with most utilizing the trail system within the Oil Heritage Region a few times per year (50%). However, smaller percentages of trail users were on the trails at least two hours in this study, with over one-third of the participants visiting the trails for one to two hours. (Oil Heritage trails recorded two-thirds of the survey group utilizing the trails for over two hours.) Morning was also the most popular time to utilize the trails, which differed from the afternoon and evening use that was often common on our trails. Also weekend and weekday usage was split in the York trails, in comparison to the Oil Heritage trails being accessed most heavily on the weekends (23% used the trails on weekdays only).

However, recreational activities were quite similar between the trails with biking and then walking/hiking being the most popular user activities. Also, most trail users discovered the trails via “word of mouth” in each of the studies. Maintenance and cleanliness were also cited as “excellent” in regards to trail attributes in both studies. Trail users were much more satisfied with safety and security (90% in York compared to just under 50% in Oil Heritage Region).

5) **The Virginia Creeper Trail: An Assessment of User Demographics, Preferences, and Economics – December 8, 2004**

**Principal Investigators: USDA Forest Service
University of Georgia**

Subject: Mixed Use Trail Study, including Bike/Foot/Horseback

The Virginia Creeper Trail (VCT) is a rail trail in the southwestern portion of the state and extends 34 miles in length. An assessment of trail users and economic impacts was performed between November 2002 and October 2003. The survey was categorized into summer and winter sampling, in which over eighty sampling days of data were retrieved.

User demographics between the trails were relatively similar, with the VCT registering slightly younger users (50% of users were between the ages of 36-55 and 18% of users were between the ages of 56-65+). Users also had slightly higher income levels, with the average income being \$72,315, and where 54% earned anywhere from \$40,000 to \$120,000 annually.

Both trails recorded 72% of the trail users citing the trails as the primary purpose of their visit to the area; and biking and walking were the most popular trail activities. Another 15% of trail users on the VCT partook in activities such as jogging, camping, viewing nature, horseback riding, and fishing, which roughly corresponds with the data in our study. Also, the two most highly rated benefits of the trail were health and fitness and viewing nature, which were also indicated in our study of the trail system within the Oil Heritage Region.

Regarding expenditures, it was estimated that approximately \$2.5 million dollars was spent over the sampling period with approximately \$23-38 of economic benefit to the

area per person per trip. Our estimated trail spending was larger over the year (\$4.31 million), and had approximately the same economic benefit per person per trip

6) **The Waterway at New River State Park: An Assessment of User Demographics, Preferences, and Economics – December 9, 2004**

**Principal Investigators: USDA Forest Service
University of Georgia**

Subject: Water Trail

This study was performed on the Waterway at New River State Park in Virginia. Two surveys were utilized, one for local residents and one for non-local residents. Trail users were approached and were asked if they wished to participate in a survey, rather than placing surveys for trail users to pick up at trailheads.

The primary activity of these trails was fishing (43%), while other common activities were canoeing, kayaking, boating, and tubing. Some recreational activities, such as biking, were noted. However, this study primarily focused on water trail users.

This study was quite different than our predominantly greenway trail study and had many different user characteristics. Trail users were younger and had higher household incomes than those noted in our surveys. Trail users also traveled longer distances to the trails (average distance traveled was 117 miles). Users were more concerned with issues such as avoiding conflict along the trails, safety, and public access. Parking, avoiding conflict, and public access were indicated as the best assets to the trails. The top recreational features of the trails were the following: water quality, water quantity, outdoor attractions, outdoor equipment, and canoe-in camping. The amount of money spent on the trails due to water based recreation was also greater than in our study. This study averaged \$136 per group, while our study averaged from \$10.91 to \$88.49 per group.

VIII. CONCLUSIONS

Comparing and contrasting other studies to the results of the Trail Utilization Study: Analysis of the Allegheny Valley Trail System within the Oil Heritage Region provided an opportunity to verify the economic impacts on the regional economy. In just four months, the trails attracted almost 83,000 trails users and generated over \$2.22 million in revenues. Over a year, these impacts totaled approximately 161,000 trail users and \$4.31 million in generated income for the Oil Heritage Region.

However, the value of the trails extends beyond the direct economic impact. These trails were all cited as being used for both health and recreational benefits. Many people who live in these areas are proud of their trail systems and enjoy accessing them to go hiking or go for a scenic bike ride, along with many other activities. The trails serve as a conduit for both local and non-local users to access the environment of the region.

The trails also serve as an alluring advertising feature for the tourism industry of the area. The Oil Heritage Region is full of history, culture, and scenery. An area that was once just a memory of the oil boom days in Pennsylvania is now transforming itself into an attractive tourist attraction for people from all over the country to visit. The railroad corridors, once so important to the local, regional and national economy, now continue to play an important role in connecting communities of the Oil Heritage Region. They enable users to traverse the area on foot or bike and explore the scenic and historic landmarks. They even connect to train stations, where trail users can “climb aboard” and ride to museums and further explore history of the region. The trail system within the Oil Heritage Region is a proven resource that enhances the region’s ability to continue to grow toward a more sustainable future.

Recreation Trails of the Allegheny National Recreation River Oil Heritage Region of Pennsylvania

EASTERN CRAWFORD CO. & ENTIRE VENANGO CO.

Trail Surface and Status

- Asphalt
- Packed Earth/Cinders
- Proposed

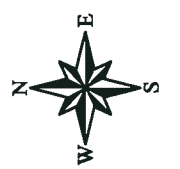
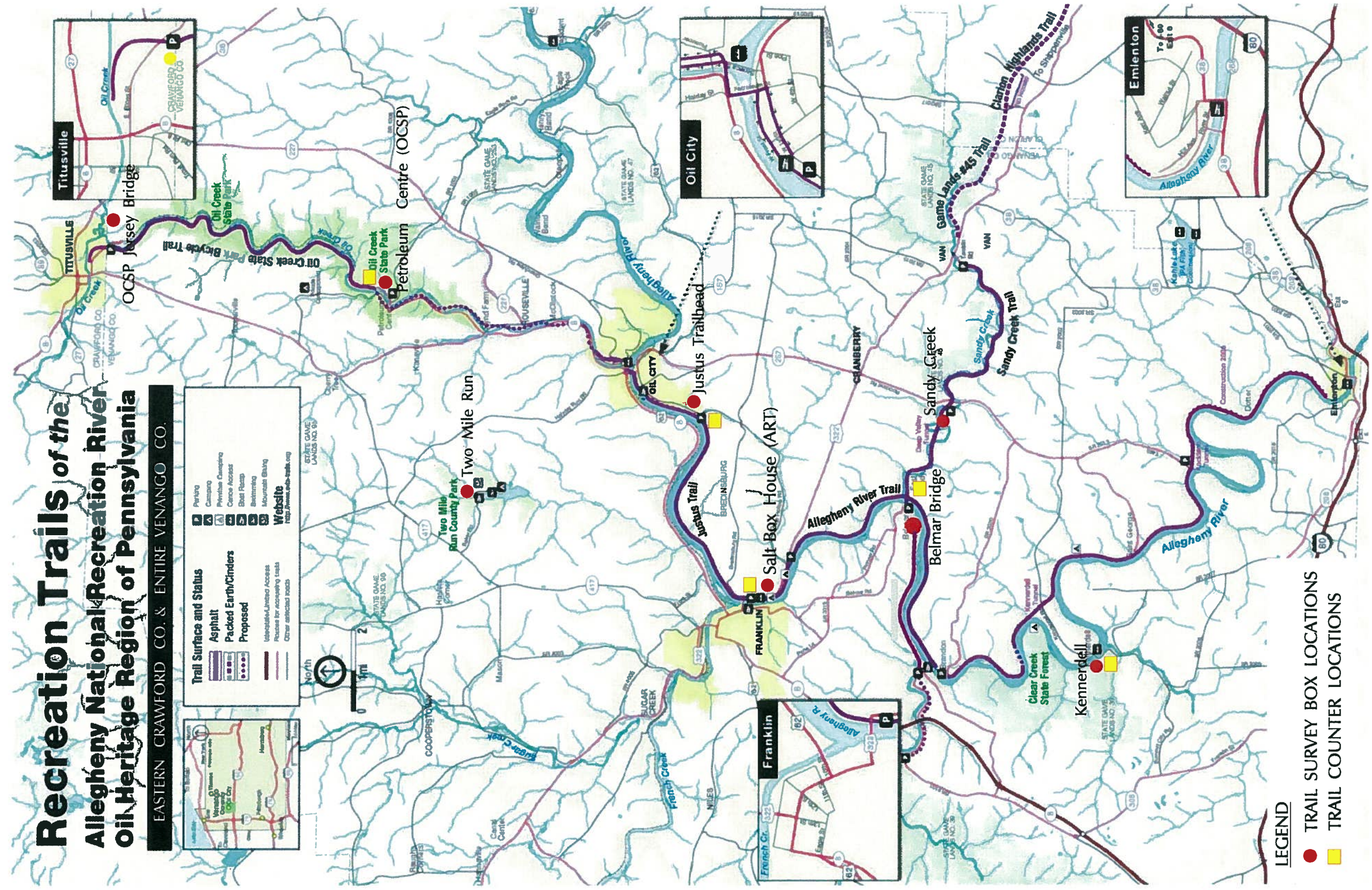
Website
<http://www.alleghenytrails.org>

Trail Counter Locations


- Trail Counter

Trail Survey Box Locations

- Trail Survey Box



Base map courtesy of the Allegheny Valley Trails Association.

 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	OIL HERITAGE REGION		DATE: 04/01/2007	
	LOCATION MAP: TRAIL COUNTERS AND SURVEY BOXES		PROJECT NO: A04382	
	DRA: JLT	SCALE: 1" = 1.25 MI		
	CHK: JTC	FIGURE: 1		

APPENDIX B

User Survey

Oil Heritage Region Trail System Questionnaire

****All answers should be indicative of either today's trail use or your most recent trail visit****

Part A. TRIP PROFILE

1. What is your residence Zip Code? _____
2. How many people, including yourself, are in your group? _____ people
 - 2a. Are any children under the age of 15 with you on your trail experience today? Yes _____ No _____
 - 2b. If YES, how many are: "under age 10" _____ or "ages 10-14" _____ ?
3. Did you stay last night adjacent to the trail system? Yes _____ No _____
If NO, how far did you travel to get to where you entered the trail today? _____ miles
4. What is your primary activity on the trail? (Circle all that apply.) Walking/ Hiking Biking Jogging
XC Skiing/Snowshoeing Rollerblading Horseback Riding Backpacking
5. During your trail visit did you: (Circle all that apply.) Hunt Fish Canoe Kayak Camp Watch Birds
Watch Wildlife Study Flowers Enjoy the Scenery Have a Picnic
6. Would you consider your use of the trail to be for: (Circle one response.)
Recreation Health/Exercise Commuting Fitness Training (marathon, triathlon) Other (specify) _____

Part B. VISITOR PROFILE

7. How often, on average, do you use this trail system?
_____ First Time _____ Once a Month _____ Once a Week _____ 3-5 Times/Week
_____ A Few Times a Year _____ A Few Times a Month _____ 2 Times/Week _____ Daily
8. Rank your trail usage by season from 1 to 4 (1=most, 4=least):
____ Summer ____ Fall ____ Winter ____ Spring
9. Generally, when do you use the trail? (Circle one response.) Weekdays Weekends Both
10. How much time do you generally spend on the trail each visit? (Circle one response.)
Less than 30 minutes 30 minutes to 1 hour 1 to 2 hours More than 2 hours
11. How did you find out about the trail? (Circle all that apply.)
Word of Mouth Roadside Signage Driving Past Newspaper PADCNR Bike Shop Information from RTC
Visitors Bureau Internet Website (specify organization) _____ Other _____

Part C. EXPENDITURES

12. Is the trail system a main reason for this trip to the Oil Heritage Region? Yes _____ No _____
13. Is your visit to the Oil Heritage Region an overnight trip away from home? Yes _____ No _____
If YES:
 - 13a. How many nights will you be staying in the Oil Heritage Region? _____ nights
 - 13b. What type of accommodation is your group staying in for the duration of your visit in the Oil Heritage Region?
____ Motel/Hotel ____ Bed & Breakfast ____ Friend or Relative's Home ____ Campground ____ Other _____
14. What was/will be the total spending of your whole group in the Oil Heritage Region during your visit (or during your most recent visit) for the following categories?

APPENDIX C

Business Survey

Dear Management Personnel:

The Oil Region Alliance (ORA) and the Allegheny Valley Trails Association (ATVA), along with the aid of a private consultant, PBS&J, are working together to perform a use and impact study of the Oil Heritage Region recreational trail system. The purpose of this study is to provide both a quantitative and qualitative analysis of trail use, so that the economic impact of the trails in the region may be assessed. The types of trail users, number of trail users, and the many trailheads are being studied in the Oil Region area in order to obtain the proper knowledge for the study.

Gaining information from our local businesses in the service industry is another key portion of data to assess in the economic impacts of the trails, as well. Therefore, the Oil Heritage Region Recreational Trail Study Team is providing the businesses in the region with a survey questionnaire. These surveys were generated specifically for business owners to share their input on how the trail *may* or *may not* aid in bringing in additional business and consumers to their enterprise.

Our Study Team has been tediously collecting data via surveys made available to trail users, but the success of the survey results also relies on gathering information from the service industry in the area. This survey is being sent out to bed and breakfasts, recreational suppliers, trail contractors, gift shops, hotels and motels, employment agencies, and many other key service sectors in the area. **Receiving input from your business is integral to the success of our study.** By contributing your thoughts and meaningful responses to the questionnaire provided, you will enable our study team to more effectively plan for the growth and success of the future of the Oil Heritage Region. Please enter your comments onto the questionnaire and send them back to our study team as soon as you can, because we are nearing the end of project study time!

Thank you in advance,

Oil Heritage Region Recreational Trail Study Team

Study Team Contacts:

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Canonsburg, PA 15317

Phone: 724.514.9000x107

Fax: 724.514.9090

Email: JRSorg@pbsj.com

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Oil City, PA 16301

814-677-3152, Extension 120

Email: kharris@oilregion.org

NOTE: This trail use study was financed in part by a Pennsylvania Heritage Areas Program Grant from the PA Department of Conservation and Natural Resources, Bureau of Recreation and Conservation, via the Oil Region Alliance of Business, Industry & Tourism. Matching funds were provided courtesy of the Allegheny Valley Trails Association.

BUSINESS SURVEY

Oil Heritage Region Study – Trail Use Impact on Local Businesses

1. What type of business do you manage or own?
2. Which trails have impact on your facility?
 - a. Allegheny River
 - b. Justus
 - c. Two Mile
 - d. Sandy Creek
 - e. State Forest at Kennerdell
 - f. Oil Creek State Park
 - g. Water Trail
 - h. Other
3. Generally, how do you think the trail(s) has/have affected your patronage?
4. Generally, how do you think the trail(s) has/have affected your property values?
5. Generally, how do you think the trail(s) has/have affected your business revenues?
 - a. Do trail users have a notable impact on your revenues?
 - b. Do the trails aid in more local residents utilizing your business, thus increasing revenues?
6. Have you experienced any problems that you attribute to the trail?
7. Is your business informed of upcoming social events on the trail(s)?
 - a. Does your business get involved with these social events?
 - b. Does your business use these events to better advertise itself?
8. How supportive were you of the trail system before it opened?
9. What is your overall satisfaction of the trail system?
10. Is your business affiliated with (or a business partner with) the Allegheny Valley Trails Association (AVTA) or the Oil Region Alliance (ORA)?
 - a. If not, would you like to be?
11. Do you feel that by continuing to expand the trails, the ORA and AVTA can benefit by working together to improve the economy of the Oil Heritage Region?
12. Do you have any additional comments to add?

Thank You!!!



APPENDIX D

List of Comments from User Survey

LIST OF TRAIL USER COMMENTS

1	Wild Brook Trout Enhancement regulations for Dennison Run. See PA Fish and Boat Comm. Internet website for description of above regulations: http://sites.state.pa.us/PA_Exec/Fish_Boat/fishpub/summary/wildbrook.html
2	Not listed above! Mile posts were very much appreciated.
3	We enjoy visiting in Pennsylvania because the Rail Trails are the best we have ridden on. The trails in the Oil Region are our favorites in PA.
4	Yes for donation, if it was used for maintenance and not somebody's pocket.
5	I would love to see the gap at Sunny Slope closed. This has been a fantastic year for AVTA accomplishments! Keep up the great work, Jim and gang!
6	Need state police to make more trips around parking areas. I have seen none this summer. More cars = more comfort. Member of the AVTA.
7	1. Moderate debris on new trail near Belmar. 2. Assume deck and side railings are in the works for R.R. Trestle on New paved trail (Belmar) 3. Enjoyed TV program on Meadville's Armstrong Channel. Good way to get people off their duffs. Date: 9/4/6
8	It would be safer to have a wooden fence along the cliff of Oil Creek State Park.
9	Easy access toilet.
10	Wonderful area to recreation bike. This is our third visit in three years and we brought friends, also from Ohio. They will come back with others and so will we! This is an incredibly beautiful area. Good restaurants are a plus - kudos to Four Sons in Titusville and the Foxburg Inn. La Bella Cucina was juicy for the quality. We love the Lambertson House in Franklin.
11	Not willing to donate at this time. Into camping, big time. We love spending time at Two Mile. It is safe, clean, and enjoyable - staff is very warm and friendly.
12	More restrooms along way and benches.
13	No to donations, because that is what taxes are for. Need to improve parking for hunters around Blood Farm and Columbia Farm. Nowhere to park if you hunt on the hillside between Columbia and Blood Farm by the Ice Control Dam!
14	Better signage from Cross Creek.
15	More restrooms on bike trail.
16	Thank you.
17	Our state and federal taxes should be used (No for donations). Try to improve restrooms. Keep up your excellent work!
18	We need a designated bike route to park in Franklin and bike racks for locking. One side angle parking on right side on Elk St. from Court House to RT 322 near bike trail on weekends would dump wallets into Franklin. One side parking on angle would make pedestrian crossings safer also in that area.
19	We had an enjoyable outing! Excellent trail and maintenance.
20	Put in the white water park in Oil City! My son and I kayak in PA, WVA, TN, and NC
21	Excellent bike weekend. Day at Presque Isle and day at Oil Creek.
22	KEEP ON, YOU'RE DOING A GREAT JOB! THE OIL CREEK TRAIL AND GERARD ARE FINE FACILITIES FOR RECREATION!
23	Great place to bike and kayak. Keep up the good work.
24	We love your trails. It's wonderful to bike ride on smooth, clean trails. We wish the path from Justus to the Allegheny River wasn't so rough, but realize land owners won't allow it to be fixed up. Thanks for the conveniences you do provide such as porta-potties along the trails. We love the scenery and wildlife we encounter along our way. A way to get fresh water would be nice, but I don't know how you'd do it. We used to buy water at the Justus trail bike store, but it seems to be closed when we are there lately.
25	Great, clean, well-maintained trail system!
26	I would like the AVTA newsletters sent to me and all of other newsletters about trails and region. The updates would help. The deep valley (Sandy Creek Tunnel) was very nice, but the Rockland Tunnel needs work. Too much water.
27	Would help with trails.

28	I am a member of the AVTA. Maps at Petroleum Center and Jersey Shore parking showing Titusville businesses and restaurants. Also directions at Jersey Shore and PC on how to use the bike path in Titusville. Use the map of Franklin's at the parking area for Allegheny River as an example.
29	Signs are needed on the West End of the Belmar Bridge showing the direction and distance to Franklin. The Kennerdell Tunnel could use some powered lights.
30	Need more restrooms.
31	A campground at Oil Creek State Park would definitely be used by our family. The nearby, private campground is okay, but DCNR campgrounds are better designed and operated.
32	Stayed weekend of 9/9-9/10/06. Stayed over night, could have driven back and forth in one day, but like the area. Stayed in Franklin at the Quality Inn. Sandy Creek is our favorite trail. Restrooms/Privy's are important.
33	Part of the PA Sojourn.
34	Please do not over develop Oil Creek State Park. We love it as is!
35	Keep dogs from trails and shelters.
36	9 @ 65 MILES. AVTA Membership.
37	Vote for Gary Hutchison.
38	I volunteer my time at OCSP - mostly splitting wood for shelters and some trail maintenance. I also donate to the Nature Conservancy, North Country Trail, Appalachian Trail, SCA, National Parks, Nat. Resource Defense Assoc. - plus all the charities that I feel that are important. Don't give my name to other organizations.
39	Big need to connect river trail together.
40	Unsure about donating. Would like to use the trails, but work out of town.
41	Prosecute 4-wheeler riders. Do not allow any motorized vehicles (other than maintenance) or horses.
42	Plan to use trails more in the future, with overnight stays. Connecting Allegheny River to Oil Creek State Park would encourage us to stay in the area longer. We enjoyed the trail and will return. We will tell family and friends of the great trail system and wonderful scenery!
43	Would like to see trail developed from Emlenton to Parker.
44	Had a great time. Please suggest that the Titusville street signs be upgraded for out-of-towners. The Comfort Inn directions were good, but once in town (approaching from the south), street markings were poor. My family camped on a rainy weekend and I (grandma) stayed in the Comfort Inn in Titusville. We took advantage of the biking and museum opportunities and enjoyed the family visiting. I collected and am saving your brochures which we may use again.
45	(A) Out of region visitors have commented that signage to assist them getting to downtown Franklin and O.C. to access restaurants and stores (B) Emlenton to Foxburg - is there a trail in order to not have to get on highway?
46	All I can say is that "what biking/walking trails is all about" you have done. Thank you.
47	Maybe to donations. It is too bad that kids must spray paint the bridge area.
48	Please remove the parking areas closest to the shelters. It would eliminate "car campers" and reduce the possibility of vandalism. True hikers would welcome the change.
49	More publicity of the trails is needed in the Pittsburgh area.
50	Mow the grass more often please....
51	No expenses today. Sometimes I buy snacks or gas or visit the yarn shop. It is very nice to see a trail where you can run long distances.
52	We so enjoyed ourselves. I had picked up a "recreational Trails in the Allegheny River Region Map". Thank you Oil Heritage Region, Inc. for putting out such a nice map. We would not have known of these nice trails if it wasn't for the pamphlets. I think I picked it up at Chapman's State Park.
53	Port-a-johns at the trailhead at Rockland.
54	Maintaining decent campsites at reasonable intervals along the river would allow you to promote much more use of the river and trails. Money on boat rentals was for canoes and shuttle. See survey for additional comments (survey 120).
55	Too bad ATV's can access State Forest land. They've caused a lot of trail damage. Maybe some signs would help. (However, they'll probably be vandalized.)

56	Restrooms - restrooms - restrooms with water and soap or hand sanitizer. People need to use the bathrooms on these trails and there are none.
57	It is truly a great pleasure and experience to ride the trails everywhere. Thank you.
58	POSSIBLY INCLUDE MORE ACCESS POINTS FOR PADDLE POWERED CRAFT. EXPAND TRAILS OUTWARD TO WEST (POLK, SANDY LAKE, STONEBORO) ON OLD RAILBED.
59	We do donate.
60	Recreation attributes info is for VAN.
61	Wonderful trails! We are very impressed by your accomplishments and pass the word on their excellence.
62	I give to Friends of OCSP. I visit OCSP twice per year in Spring and Fall. I bike the trail and stay at both trail shelter areas. This will be my tenth season of doing this. The trail and shelter areas compare with any that I have visited all over the country and Oil Creek is less than 180 miles from my home.
63	Any chance that OCSP would ever be opened for mountain bike riding?
64	I am from Pittsburgh, have travelled throughout USA, Mexico, Canada, Europe and this ORA is some of THE most beautiful country. Have not found a park so beautiful and diversified as 2 Mile Run and it is a shame the negative editorials and law suits filed against this Park. I have brought many friends to 2 Mile Run and they have all returned with families and/or friends!
65	My donation is when we see trash, etc. we pick up and take with us even if it is not ours. See attached.
66	Already donates yearly. Doing an excellent job with the system. Keep up the good work! We biked to the new bridge going over west Sandy Creek - looked forward to it opening! 10/10/06
67	Willing to donate via something like direct contributions at the trail site, but not necessarily through mail marketing.
68	Dennig Trail could use some maintenance - water bars, etc. Horses were riding past posted signs. (???)
69	CONTINUE.
70	Just driving through - nice day outing, enjoyed the train.
71	We love the trails near Kennerdell/Dennison Run.
72	My wife and I biked the Oil Creek Trail. It was absolutely beautiful!! We definitely will be back to explore some more of the hiking and biking trails.
73	Sandy Creek Trails is beautiful; we thoroughly enjoyed ourselves.
74	State taxes and hunting and fishing license fees should be sufficient if they are spent appropriately.
75	Donation was enclosed with survey.
76	You guys are the best! Thank you for a most enjoyable day!
77	Yes to donation only if horse friendly. I helped at Oil Creek State Park map and make horse trails, only to be unable to use them because they turned them into hiking and biking trails only. No horses! I would like to see all the trails be horse friendly.
78	2 years ago I tried to fill out an online survey and I was not able to do it. It may have been because I was on a MAC. This form has been helpful and easier than online.
79	Most of the survey is N/A because I was there assisting with an annual bat count.
80	It would be nice to have the foot bridge at Oil Creek repaired.
81	We love paved trails that are peaceful and not much traffic. We wish the Montour were paved. Nice trail!!
82	Your bike trails are the nicest we have found in western PA. We like to travel to them as much as our schedule allows us!
83	It would be great if the Allegheny River Trail would be paved around the detour over the rocks before the tunnels. This is a great trail except for this portion - at least grade and level it and apply a smooth surface.
84	Above recreation attributes are for the Sandy Creek Trail
85	Already donates annually
86	At about 1:30 PM on 10/18, my wife and I were riding upriver on the Allegheny River Trail MP 10 or MP 11. A red pick-up truck from Pro-Line Construction was driving ON the trail at high speed straight toward us refusing to get off onto the gravel right of way.
87	We only use the boat launch to fish. If the launch in Oil City is part of what is considered the trail, these answers are the best I can do for you. Most of the questions are too vague or non-applicable for our activities there!!!

88	Note: They donated when they sent in the survey!!
89	We love these woods - great hiking!
90	I donate regularly.
91	How can I get the newsletter in the mail?
92	The half-mile missing link on the Allegheny River trail was awful, especially on a road bike, and it was poorly marked. If you can't finish the trail, can you at least work towards getting the road paved and the "bunny hill" improved?
93	More restrooms
94	Need access to portals of Kennerdell Tunnel.
95	Restrooms needed. Benches at trailheads would be useful.
96	The survey choices on how often you use the trail is flawed. It is not my first time using the trail, but the next choice was once a month. I actually use it every year or two. The more you get completed, the better chance I will use it every year. I live 3-1/2 hrs. away. It drives me crazy that the Website is not updated more often. I want to know: Is the trail open to Emlenton? Is the gap at Sunnyslope fixed? Is the trail toward Pecan open yet? But there is no contact info on the Website.
97	We did the Oil Creek trail and stayed in Franklin. We had hoped to do the Justus Trail the next morning but got rained out. We want to come back and do the Allegheny and Justus Trails next summer.
98	Need to update Website. I enjoyed the trail. Went from Franklin to Emlenton. Could use some mile markers and more maps along the trail so you know where you are. Could also use north and south markers so you know which way you are going. Thank you very much for making this trail.
99	My husband and I love to explore the new trails. We recently enjoyed the new trail at Belmar Landing and ride to the covered bridge under Route 8. We hope the trail continues to grow in 2007. Thanks for all your hard work.
100	Additional and some new trail signs are needed in the "State Forest at Kennerdell" marking various trails between Dennison Run and Bullion Run.
101	Stock more fish in the fall.
102	The stairs between Sandy Creek and Allegheny River are too steep and unsafe. Leaf-covered to boot! Please build a ramp around them. I have ideas if you don't.
103	Already donate to Rails to Trails.
104	Water Fountain and Restroom
105	Would like you to include on your website information close or on the trail lodging

APPENDIX E

Tally Sheets

2006 Oil Heritage Region Trail System - User Tally Sheet

Submitted by: _____

Name of Trail: _____

Trail Segment: _____

Date: _____

Time (circle): AM PM

TRAIL USER	TOTAL
Bikers	
Runners	
Walkers	
In-Line Skaters	
Wheel Chair Riders	
Other	

Thank you for helping the Allegheny Valley Trails Association!!!