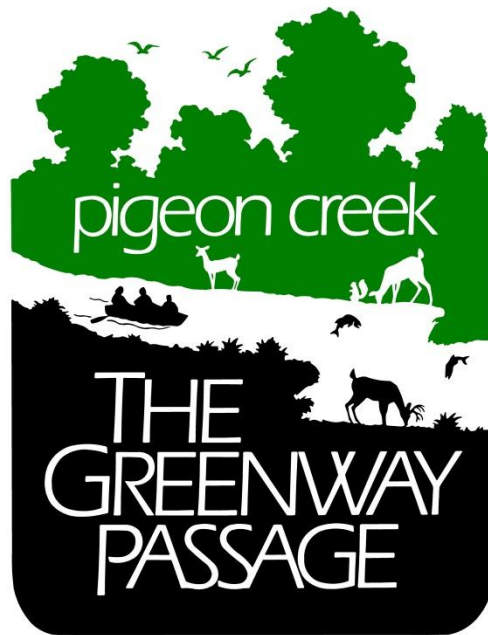




University of Southern Indiana



Pigeon Creek Greenway Usage Study

December 2012

Prepared for:

The Evansville Parks Board

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Partially funded by grants provided through the Real USI Service Learning program

Prepared under the auspices of USI Center for Applied Research and Economic Development

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EXECUTIVE SUMMARY

USI students counted 4,353 Greenway users and administered 282 surveys during the seven-day period running from Monday, September 24 to Sunday, September 30, 2012. The counts and surveys were taken at three intercept points along the Pigeon Creek Greenway: The Pagoda Trailhead, the Shirley James Memorial Gateway Plaza, and the Garvin Park Trailhead. As in 2006, the Riverfront section of the Greenway is the most used segment with over 2,500 users during the week-long study. Other key findings from the study are listed below.

- From 2006 to 2012, the number of Greenway users increased approximately 51 percent at the Pagoda and Garvin Park Trailheads. When analyzed separately, the Riverfront section of the trail experienced a 33 percent increase in usage while Garvin Park experienced a 138 percent increase.
- In 2012, the census counts demonstrated that there was a “gender gap” in Greenway Users at both the Garvin Park and Shirley James Memorial intercept points. At both locations, only 44 percent of the users were women. This phenomenon did not occur at the Pagoda intercept point where women made up almost half (approximately 49 percent) of the users. It should be noted, however, that the “gender gap” has narrowed at the Garvin Park intercept point; in 2006, almost three-quarters (72 percent) of the users at this location were men.
- Based on the census counts, the most popular Greenway activity for both “ends” of the trail was walking (51 percent of users), followed by cycling (23 percent of users) and running (21 percent of users). Data from the user intercept surveys also shows that walking (58 percent of respondents) was the most popular activity, followed by cycling (28 percent of respondents) and running (12 percent of respondents). In the middle of the trail, cycling was the most popular activity (45 percent of users counted at the Shirley James intercept point).
- Approximately 70 percent of survey respondents indicated that they used the trail at least once per week, with 46 percent of survey respondents using the trail three or more times per week. Once on the trail, 44 percent of survey respondents will use the trail for 60 or more minutes and 22 percent will use the trail for 50 minutes to an hour.
- Overall, approximately 96 percent of survey respondents felt “very safe” or “somewhat safe” when using the Greenway. More male respondents (68 percent) said they felt “very safe” on the trail when compared to female respondents (46 percent).
- Close to 100 percent of survey respondents stated that they were “very satisfied” or “somewhat satisfied” with the Greenway.
- When asked about improvements to the trail, the common themes included: more safety features such as better lighting, cameras and increased patrols by policy officers; the addition of water fountains and public restrooms; less trash and vandalism; extending the trail; improving maintenance of the trail; making the trail wider; and improving the smell.

INTRODUCTION

The Pigeon Creek Greenway Passage is a recreational walking, jogging, and cycling trail located in Evansville, Indiana. The trail starts at Sunrise Park in downtown Evansville, extending northwest along the Ohio River. At the Shirley James Memorial Gateway, the Greenway follows Pigeon Creek north before crossing Fulton Avenue near Cedar Hall Community School. The Greenway follows the creek south and east to Garvin Park, and then runs northeast before terminating at the Heidelberg Canoe Launch. At the time this study was conducted, construction on Phase 4 was under construction; this phase ultimately connected the two “ends” of the Greenway with a link between Louisiana and Dresden Streets, creating a 6.75 mile stretch of trail. Future plans include combining the Greenway with new urban bike lanes to create a loop from the Heidelberg Canoe Launch to downtown Evansville.

Currently, the Greenway includes three sections: the Riverfront Corridor, the Industrial Corridor, and the Middle Levee Corridor. The **Riverfront Corridor** extends for 1.5 miles from Sunrise Park to Casino Aztar. The corridor passes by the Evansville Museum of Art, History and Science, the Pagoda, the Convention and Visitor Bureau, the Four Freedoms Monument and Dress Plaza. Trailheads are located at Sunrise and Sunset Parks, the Evansville Museum, and the Evansville Pagoda. The **Industrial Corridor** extends 3.5 miles from Casino Aztar to the Middle Levee Corridor. Located along this corridor are the Shirley James Memorial Gateway Plaza and the Lamasco Skate Park. In addition, a spur of the trail leads to the Marchand Bridge Overlook which is located at the mouth of Pigeon Creek. The **Middle Levee Corridor** extends 1.7 miles from the Industrial Corridor to the Heidelberg Canoe Launch. The Middle Levee Corridor includes the Uhlhorn Trailhead. The corridor passes by Kleymeyer Park and passes through Garvin Park. The Middle Levee Corridor was the first trail constructed by the City of Evansville.¹

In June 2004, the Pigeon Creek Greenway Passage was designated a National Recreation Trail by the National Parks Service. This award designates the Greenway as a component of a larger national trail system that stretches across the United States. Portions of the Greenway are also included as a part of the Upgrade Now campaign’s Walk EVV Map.²

¹ Source: City of Evansville | Pigeon Creek Greenway Passage websites: (1) <http://evansvillegov.org/index.aspx?page=589>; (2) <http://evansvillegov.org/index.aspx?page=660>; (3) <http://evansvillegov.org/index.aspx?page=2102>; and (4) <http://evansvillegov.org/index.aspx?page=2103>.

² Upgrade Now Campaign. <http://www.upgradenow.org/EVVWalkingMap.pdf>

Map 1. Intercept Points for User Survey



STUDY PURPOSE AND METHODS

Scope. In 2006, the Evansville Parks Department commissioned a study through the Center for Applied Research at the University of Southern Indiana to quantify the number of users on the Pigeon Creek Greenway Passage and gain user perspectives through intercept surveys. The Parks Department asked for a replication study in 2012 to update its data regarding usage and user perceptions. The 2012 study was conducted in a similar fashion to the 2006 study, with a two minor modifications: (1) the inclusion of an additional intercept point; and (2) additional survey questions pertaining to some of the new features on the trail such as signage, the Shirley James Gateway Memorial, and the Marchand Bridge.

Study Methods. The 2012 Pigeon Creek Greenway Usage Project used a combination of two methods to obtain quantitative data about the use of trails: manual counts and user intercept surveys. Teams of two to three trained students were placed at three intercept points along the Greenway: the Pagoda Trailhead, the Shirley James Gateway Memorial Plaza, and the Garvin Park Trailhead. [See Map 1] The students received specialized training from the two lead researchers (Dr. Glenna Bower and Dr. Mary Hallock Morris) and participated in a professionalization seminar conducted by USI's Center for Applied Research. The student data collectors were also required to complete the Collaborative Institution Training Initiative (CITI) before participating in the project.

The data was collected during a seven-day period running from Monday, September 24 to Sunday, September 30, 2012. The data was collected using the following methods:

- Manual Counting Forms were utilized to record the number of trail users at 60 minute intervals. The counting forms also allowed data collectors to note the user's activity and gender. The counts took place from 7 a.m. to 7 p.m. in most locations; due to safety considerations, the counts at the Shirley James Memorial Gateway ended at dusk. A copy of the counting form can be found in Appendix C.
- User Intercept Surveys consisting of 19 questions (and additional follow up questions) were used to obtain information about the users' perceptions of the Greenway. The student data collectors were asked to survey every fifth adult who passed by their intercept point. If the fifth adult declined to participate, then the data collector asked the next user to participate. Once a user completed the survey, the count would reset.

CLIMATOLOGICAL DATA

Table 1. Preliminary Local Climatological Data for Study Period

Weekday	Date	Average Temperature	Average Wind Speed (MPH)	Total Precipitation	User Count Pagoda Trailhead	User Count Shirley James Gateway	User Count Garvin Park Trailhead
Monday	9/24/12	56.0	4.0	.00"	474	**	44
Tuesday	9/25/12	68.0	7.0	.06"	199	79	84
Wednesday	9/26/12	73.0	7.0	.41"	268	94	90
Thursday	9/27/12	73.0	3.0	.01"	89	260	56
Friday	9/28/12	67.0	4.0	.06"	163	74	**
Saturday	9/29/12	67.0	3.0	.00"	537	186	472
Sunday	9/30/12	62.0	3.0	.00"	774	265	145

Source: www.evansville-weather.com

Table 1 utilizes the Preliminary Local Climatological Data for the Evansville area to illustrate the effects of weather conditions during the study period. In 2006, weather conditions may have suppressed the number of Greenway users; as noted in the report from that year³, four out of the seven coldest days and three out of four of the windiest days in the month of October occurred during the study period. In 2012, at the request of the contracting agency, the study was conducted during the last week of September which was the week prior to the Westside Nut Club Fall Festival. The weather during this time period was ten to 20 degrees warmer than during the 2006 study. It should be noted that a severe thunderstorm that came through Evansville on the evening of Wednesday, September 26; however, this did not appear to have a significant impact on the census counts.

³ Center for Applied Research. (2006, December 5). *Pigeon Creek Greenway Usage Study: Summary Report*. Evansville, IN: University of Southern Indiana.

GREENWAY CENSUS COUNTS

USI students counted 4,353 Greenway users over a seven-day period running from Monday, September 24, to Sunday, September 30, 2012. User counts were taken at three intercept points along the Pigeon Creek Greenway: the Pagoda Trailhead (2,504 users), the Shirley James Memorial Gateway Plaza (958 users), and the Garvin Park Trailhead (891 users).

Comparative Data, 2006 and 2012. In 2006, trail counts were conducted on the Riverfront and at the Garvin Park trailhead. The total number of Greenway users for these two locations was 2,254. In 2012, the total number of Greenway users for these two locations was 3,395. The increase in users for these two locations was 1,141 people – an increase of 50.6 percent. The Riverfront trail experienced a 33 percent increase in users (i.e., 620 people) from 2006 to 2012 while the Garvin Park area saw an increase of 138 percent (i.e., 517 users).

Table 2. Comparative Census Counts, Pagoda & Garvin Park Trailheads

	Pagoda Trailhead		Garvin Park Trailhead	
	2006	2012	2006	2012
Monday	7	474	4	44
Tuesday	278	199	22	84
Wednesday¹	221	268	52	90
Thursday	175	89	26	56
Friday	143	163	64	**
Saturday	469	537	90	472
Sunday	587	774	116	145
Weekly Total	1,880	2,504	374	891

¹In 2012, the census counts ended at 6 p.m. due to a severe storm warning.

Between 2006 and 2012, there was a slight change in the ratio of male to female Greenway users. In 2006, 43 percent of Greenway users (n = 980) were female; in 2012, this has increased to 47 percent (n = 1,610). Male users made up 57 percent (n = 1,274) of the Greenway users in 2006; in 2012, male users (n = 1,785) accounted for 53 percent of the total census counts.

In 2006, there was a large “gender gap” among Greenway users at the Garvin Park trailhead. During this baseline study, 72 percent of the users (n = 269) were male and 28 percent of the users were female (n = 105). This gap has started to close: in 2012, the ratio of male to female users at the Garvin Park trailhead was 56 percent to 44 percent. It should be noted that the disparity between male and female users is not as defined along the Riverfront section of the Greenway. In 2006, 53 percent of the users were male (n = 1,005) and 47 percent of the users were female (n = 875). In 2012, the difference was smaller: 51 percent of the users were male and 49 percent of the users were female. [See Table 3]

Table 3. Greenway Users by Gender, 2012

	Pagoda Trailhead		Garvin Park Trailhead	
	Male	Female	Male	Female
Monday	246	228	34	10
Tuesday	101	98	61	23
Wednesday	162	106	69	21
Thursday	32	57	37	19
Friday	94	69	**	**
Saturday	229	308	207	265
Sunday	422	352	91	54
Weekly Total	1,286	1,218	499	392
Percentages	51.4%	48.6%	56%	44%

Table 4 summarizes the Greenway users' activities for 2006 and 2012 along the Riverfront and at the Garvin Park Trailhead. The percentage of walkers decreased from 76 percent in 2006 to 51 percent in 2012 while the percentage of runners and joggers increased from 10 percent in 2006 to 21 percent in 2012. These percentages may be influenced by the fact that Half-Marathon training runs were being held on the Greenway during the 2012 census counts. Furthermore, the percentage of cyclists increased from 12 percent in 2006 to 23 percent in 2012. The number of cyclists should continue to grow as the Greenway is now completed from Sunrise Park in downtown Evansville to the Heidelbach Trailhead located northeast of Garvin Park.

Table 4. User Activities, Pagoda & Garvin Park Trailheads Combined

	2006		2012	
	Frequency	Percentage	Frequency	Percentage
Walking	1,711	75.9%	1,746	51.4%
Jogging Running	225	10%	708	20.8%
Cycling	267	11.8%	794	23.4%
Roller Blading	28	1.2%	29	1.0%
Pushing a Stroller	**	**	66	1.9%
Other	23	1.0%	52	1.5%
Total	2,254	100%	3,395	100%

Averages and Peak Hours, Pagoda and Garvin Park Trailheads. An analysis of the census counts for the Pagoda and Garvin Park Trailheads demonstrated that the Greenway was more heavily used on the weekends than during the week. In 2012, the Greenway averaged 293

users during the week and 964 users on the weekend. The highest hourly count occurred from 8 – 9 a.m. on Saturday, September 29 when 355 users were counted at the Pagoda and Garvin Park Trailheads. Peak usage during the week occurred between noon – 1 p.m.; on the weekends, peak usage is in the mornings between 8 – 9 a.m.

The Shirley James Gateway, 2012. USI students also conducted census counts at the Shirley James Gateway Memorial; the census counts for this location are incomplete due to safety and security concerns. [See Appendix B] During the study period, the students counted 958 Greenway users at this location. As shown in Table 5, there is a “gender gap” in the users counted at this location which is similar to the one that occurred at the Garvin Park Trailhead. Fifty-six (56) percent of the users at this location were male and 44 percent were female.

Table 5. Greenway Users by Gender, Shirley James Gateway Memorial

	Male	Female	Total
Tuesday	46	33	79
Wednesday	69	25	94
Thursday	134	126	260
Friday	35	39	74
Saturday	101	85	186
Sunday	154	111	265
Total	539	419	958
Percentage	56.3%	43.7%	

Table 6. User Activities, Shirley James Gateway Memorial

	2012	
	Frequency	Percentage
Walking	371	38.7%
Jogging Running	124	12.9%
Cycling	426	44.5%
Roller Blading	18	1.9%
Pushing a Stroller	14	1.5%
Other	5	0.5%
Total	958	

Table 6 summarizes the Greenway users’ activities at the Shirley James Memorial Gateway. Unlike the two “ends” of the trail, cycling appears to be the predominant activity through this

portion of the Greenway. Almost 45 percent of the individuals (n = 426) counted at the Memorial were cyclists. Walking was the second most popular activity, making up almost 39 percent of the census count, followed by running at approximately 13 percent.

Although the census count for the Shirley James intercept site is not as complete as the counts for the Pagoda and Garvin Park sites, we can state that the traffic through the Gateway is higher on the weekends than during the week. Although the peak hour of traffic was on Thursday from 6-7 p.m. (159 users), this was due to a training run for the Half-Marathon. The second, third, and fourth highest hours of usage all occurred during the weekend: Sunday from 4-5 p.m. (50 users), Sunday from 2-3 p.m. (45 users), and Saturday from 10-11 a.m. (40 users). The lowest counts occurred during from 7-8 a.m. (mean = 5.25 users) and from 9-10 a.m. (mean = 6.4 users).

THE USER INTERCEPT SURVEY

USI students collected 282 surveys from Greenway users over a seven-day period running from Monday, September 24, to Sunday, September 30, 2012. The surveys were administered at three locations along the Greenway: the Pagoda Trailhead, the Shirley James Gateway Plaza, and the Garvin Park Trailhead.

Demographics. Of the respondents who indicated their gender on the survey (n = 265), 151 (57 percent) were male and 114 (43 percent) were female. The racial composition of the sample was 91.9 percent Caucasian, 6.3 percent African-American, and 1.1 percent Latino/Latina. Less than 1 percent of the respondents indicated that they were Native American (1 respondent) or of Indian descent (1 respondent). The ages of the survey's respondents ranged from 13 to 87 years old with a mean of 46.8 years and a median age of 49 years.

Table 7. Respondents by Age*

	Frequency	Percentage
Under 20 years old	5	1.9
20 to 29 years old	52	19.3
30 to 39 years old	38	14.1
40 to 49 years old	49	15.6
50 to 59 years old	71	26.3
60 to 69 years old	34	12.6
70 to 79 years old	24	8.9
80 years and older	4	1.5

**Number of respondents = 270*

Table 8. Respondents' Educational Attainment*

	Frequency	Percentage
Less than high school	13	4.8
High school diploma/GED	49	18.1
Technical/trade school	7	2.6
Some college	67	24.8
Bachelor's degree	80	29.6
Graduate degree	54	20.0

**Number of respondents = 270*

The majority of survey respondents (95.2 percent) have earned at least a high school diploma. Close to half of respondents (49.6 percent) hold a bachelor's or graduate degree. Almost two-thirds of the respondents (63.7 percent) were employed at the time the survey was administered. Another 23 percent indicated that they were retired and 4.8 percent indicated that they were currently students. The median family income for the survey respondents was between \$50,000 and \$59,999 for the 2011 calendar year.

Table 9. Respondents' Employment Status*

	Frequency	Percentage
Currently employed	172	63.7
Currently unemployed/laid off	15	5.5
Retired	62	23.0
Student	13	4.8
Homemaker	1	0.4
Other	7	2.6

**Number of respondents = 270*

Table 10. Respondents' Family Income, 2011*

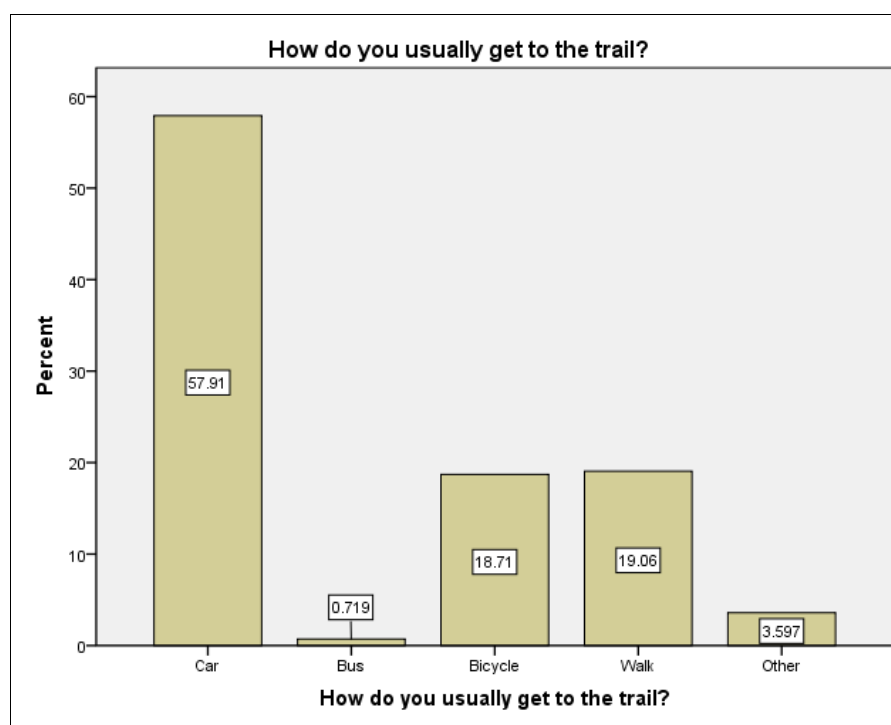
	Frequency	Percentage
Less than \$10,000	20	10.2
\$10,000 to \$19,999	15	7.6
\$20,000 to \$29,999	14	7.1
\$30,000 to \$39,999	27	13.7
\$40,000 to \$49,999	22	11.2
\$50,000 to \$59,999	16	8.1
\$60,000 to \$69,999	20	10.2
\$70,000 to \$79,999	6	3.0
\$80,000 to \$89,999	9	4.6
\$90,000 to \$99,999	6	3.0
\$100,000 to \$149,999	28	14.2
\$150,000 and above	14	7.1

**Number of respondents = 197*

Trail Usage. Eighty-four (84) percent of the survey respondents had used the Greenway before, with only 45 individuals (16 percent) indicating that this was their first time using the trail. Of the respondents, only five people indicated that they would not be using the trail again. More than half of the respondents (55 percent) used the trail alone, with 34 percent using the trail in pairs and 11 percent using the trail in groups of three or more people.

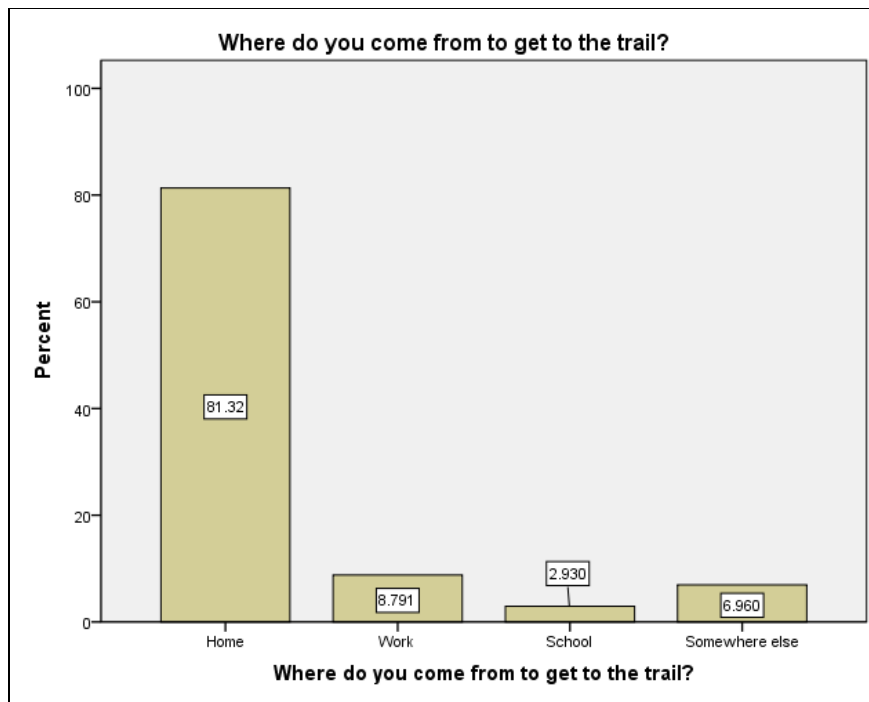
Individuals traveled between one and 90 minutes to use the Greenway. The majority of respondents stated that they traveled 10 minutes to use the trail; the mean travel time was slightly higher (12.5 minutes). The majority of respondents (57.9 percent) used their car to travel to one of the trailheads; 19.1 percent of users walked, 18.7 percent rode a bicycle, and 3.5 percent used other modes of transportation such as a skateboard or roller blades. Only two of the respondents used the bus to get to the Greenway.

Chart 1. Mode of Transportation Used to Travel to the Greenway



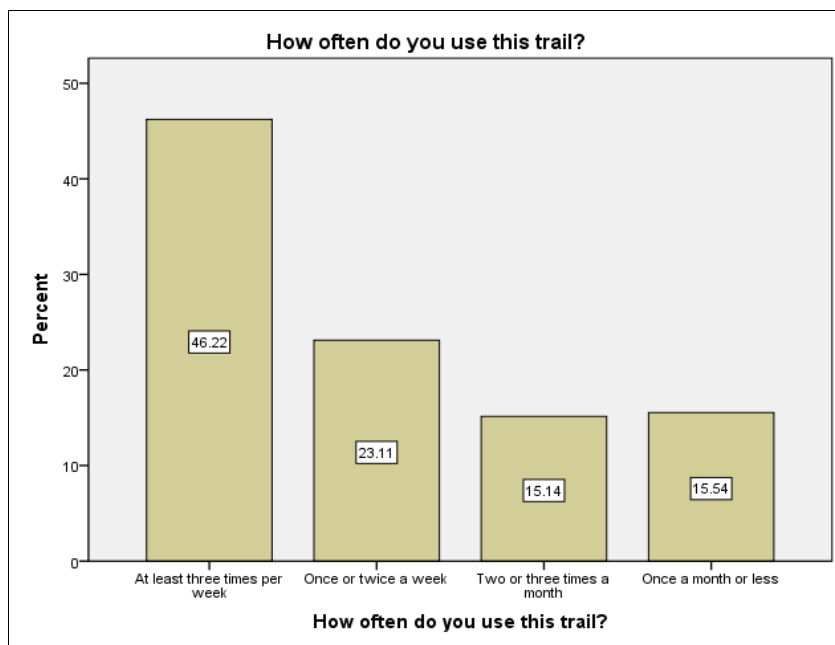
The majority of survey respondents (81.3 percent) traveled from their home to use the trail. Only 11.7 percent of the respondents came from their place of employment (8.8 percent) or from school (2.9 percent). Seven (7) percent of respondents indicated that they traveled to the Greenway from “somewhere else.” Survey respondents in this category included visitors who were staying in the downtown hotels.

Chart 2. Respondents' Originating Location



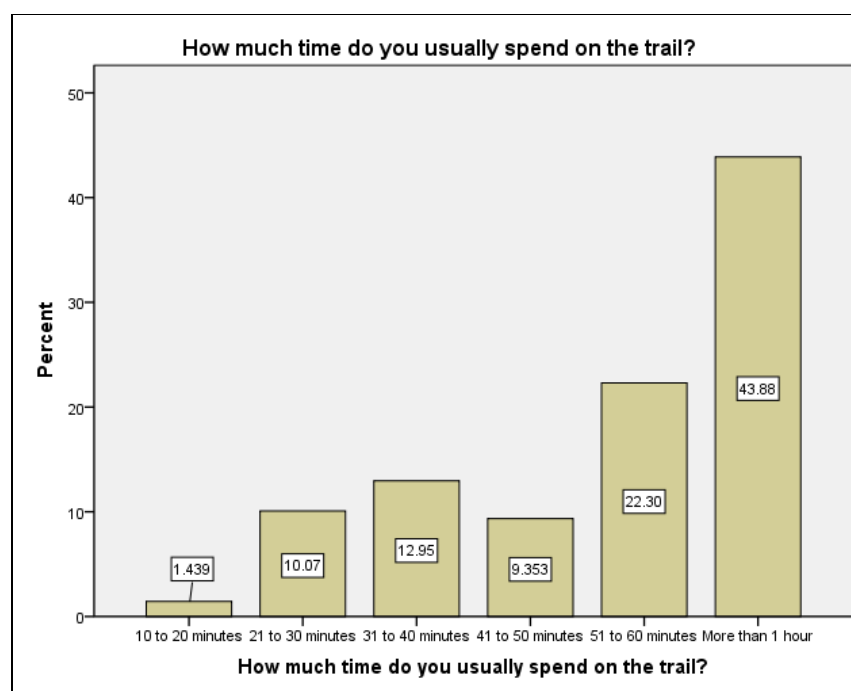
Close to 70 percent of survey respondents use the trail at least once per week, with 46.2 percent of individuals using the trail three or more times per week. Another 15.1 percent of respondents use the trail two to three times per month, with 15.5 percent of respondents indicating that they use the Greenway once a month or less.

Chart 3. How Often Respondents Use the Greenway



Most respondents (56.1 percent) will spend an hour or less on the Greenway during a single visit: 1.4 percent of respondents spend 10 to 20 minutes on the trail; 10.1 percent spend 21 to 30 minutes; 12.9 percent spend 31 to 40 minutes; 9.4 percent spend 41 to 50 minutes; and 22.3 percent spend 51 to 60 minutes. Interestingly, 43.9 percent of respondents report that they spend more than an hour on the Greenway during a single visit; this was the mode for our dataset.

Chart 4. Time Spend on Greenway during a Single Visit



The survey respondents were given the opportunity to list the types of activities they usually participated in when using the Greenway. Walking was the activity most often cited by the respondents (71.6 percent), followed by cycling (37.9 percent) and jogging/running (20.9 percent). Seven respondents listed other activities such as skateboarding and roller blading.

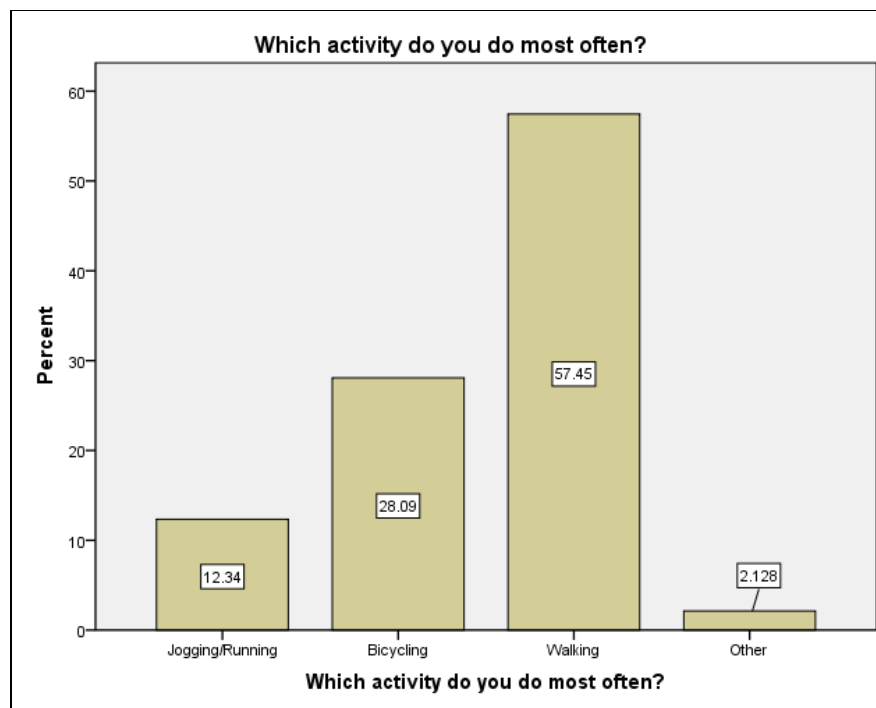
Table 11. Popular Greenway Activities*

	Frequency	Percentage
Walking	202	71.6
Bicycling	107	37.9
Jogging Running	59	20.9
Other	7	2.48

** Percentages are equal more than 100 as survey respondents could select more than one activity.*

Survey respondents were then asked to select the activity that they did most often when on the Greenway. Again, walking was selected as the most popular activity (57.4 percent), followed by cycling (28.1 percent), and jogging/running (12.3 percent). Only 2.1 percent of the respondents selected some other activity. It should be noted that cyclists may be underrepresented in this sample as the majority of survey respondents were traveling by foot on the Greenway.

Chart 5. Activity Done Most Often on Greenway



Signage, Shirley James Gateway, and the Marchand Bridge. The Pigeon Creek Greenway Passage includes two landmarks: The Marchand Bridge located on the Greenway’s Ohio Street spur and the Shirley James Gateway Memorial Plaza located along the Greenway between Ohio Street and the Lloyd Expressway. The Marchand Bridge is listed on the National Register of Historic Places and was restored in 2009 using funds Riverboat funds and a state Transportation Enhancement Grant.⁴ The Shirley James Gateway is an interpretative center that tells the story of how transportation has influenced Evansville and was dedicated in 2010.⁵

⁴ Nesbitt, J. (2009, April 2009). “1891 Bridge Gets Face-Lift.” *Evansville Courier & Press*. <http://www.courierpress.com/news/2009/apr/09/1891-bridge-gets-face-lift/>; Pigeon Creek Greenway Passage, “Marchand Bridge Overlook,” <http://evansvillegov.org/index.aspx?page=660>.

⁵ “Shirley James Gateway Plaza Ribbon Cutting.” WFIE. <http://www.14news.com/story/12328621/shirley-james-gateway-plaza-ribbon-cutting>; Pigeon Creek Greenway Passage, “Shirley James Gateway Plaza,” <http://www.14news.com/story/12328621/shirley-james-gateway-plaza-ribbon-cutting>.

When asked, 50.4 percent of respondents indicated that they had been to the Marchand Bridge overlook and 42.5 percent had been to the Shirley James Memorial.

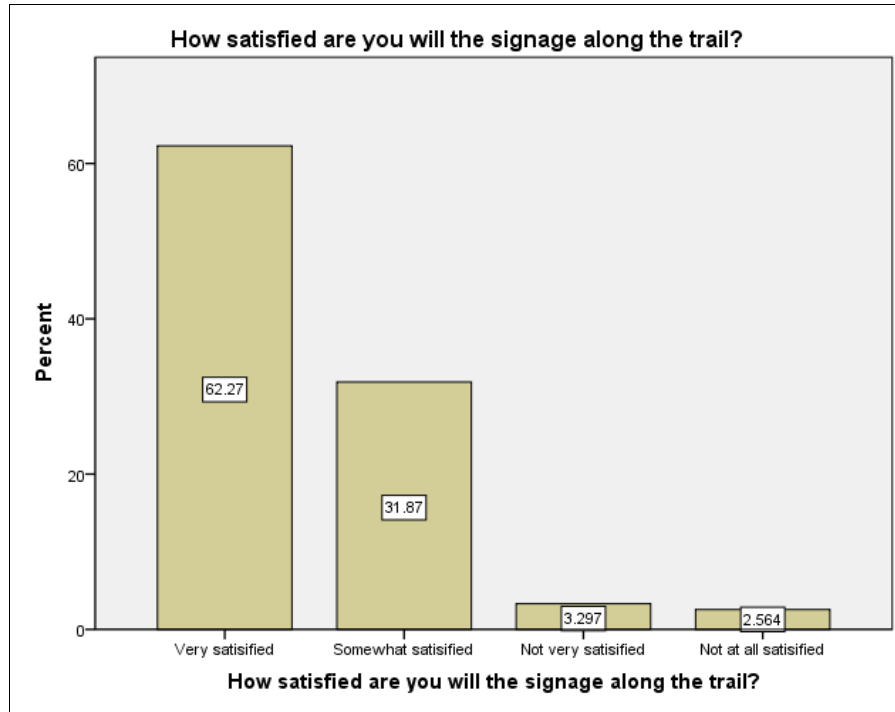
Those individuals who indicated that they had been to the landmarks were asked to list what they liked about the landmark and what could be improved about the landmark. Individuals who had been to the **Marchand Bridge** stated: (1) they enjoyed the view; (2) they liked the history signs; (3) they liked the color of the bridge; and (4) they found it relaxing. They asked for the following improvements: (1) more benches; (2) better lighting; (3) trash pickups along the river; (4) improving the smell in the area; and (5) more security patrols, with a particular focus on removing drug dealers. Individuals who had been to the **Shirley James Memorial** stated: (1) they liked the history; and (2) that they found the architecture/artwork to be aesthetically pleasing. They also liked the fact that the memorial replaced a former scrap yard. The respondents suggested the following improvements: (1) installing public restrooms and a water fountain; (2) adding more picnic tables; (3) adding more plants and flowers; (4) better lighting; and (5) more police patrols to improve safety in the area. Respondents also stated more generally that the landscaping needs to be maintained at the site.

Table 12. Requested Improvements, Marchand Bridge & Shirley James Memorial

Requested Improvements	
Marchand Bridge	<ul style="list-style-type: none"> ▪ More benches ▪ Better lighting ▪ Trash pickups along the Ohio River ▪ Minimizing the smell from the Ohio River ▪ More security
Shirley James Memorial	<ul style="list-style-type: none"> ▪ Public restrooms and water fountains ▪ More picnic tables ▪ Improved landscaping More plants and flowers ▪ More security ▪ Better lighting

Survey respondents were also asked about the signage along the Greenway Passage, with 94.1 percent of individuals indicating that they were “very satisfied” (62.3 percent) or “somewhat satisfied” (31.9 percent) with the signs. In an open-ended follow up question, respondents were given the opportunity to elaborate on why they were not satisfied with the signage. Their comments provided three useful suggestions: (1) add mile markers to the trail; (2) add directional signs to the trail; and (3) make the signs easier to read. Some people noted that the Upgrade signs should be translated from steps to miles.

Chart 6. Respondents' Satisfaction Levels with Greenway Signage



Safety Issues. Overall, 95.7 percent of survey respondents stated that they felt “very safe” (59.2 percent) or “somewhat safe” (36.5 percent) when using the Greenway. Only 12 people answered “not very safe” or “not safe at all.” When analyzing the data, the researchers found difference between male and female respondents on the issue of safety. Female respondents were less likely than male respondents to state that they felt “very safe” when using the Greenway, compared to 67.8 percent of male respondents.

Table 13. Safety Responses By Gender

	Male Respondents n = 149	Female Respondents n = 113
Very safe	67.8	46.0
Somewhat safe	29.5	46.9
Not very safe	0.7	4.4
Not safe at all	2.0	2.7

$$\chi^2 = 14.522, p = .002$$

Chart 7. Responses Regarding Greenway Safety

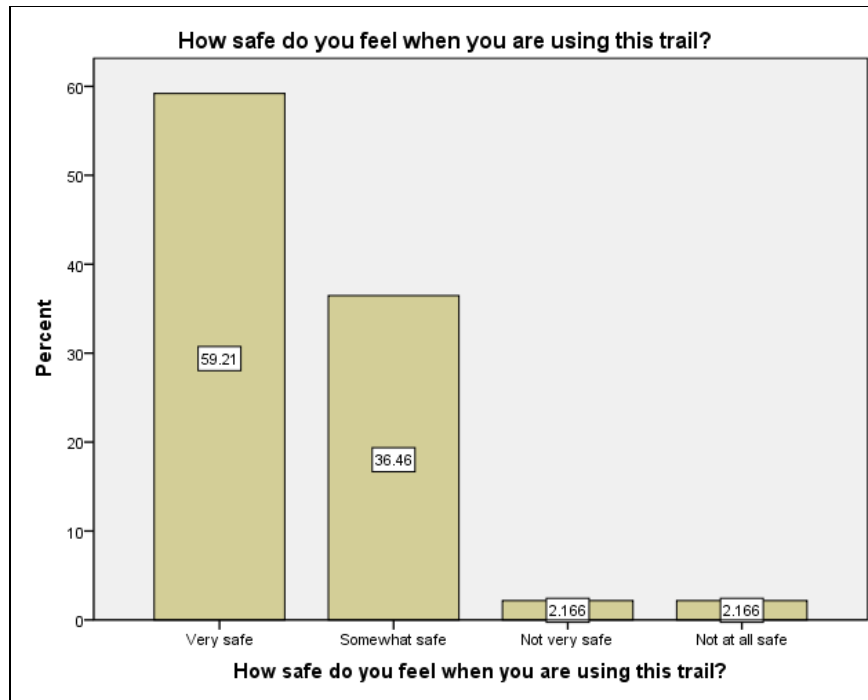
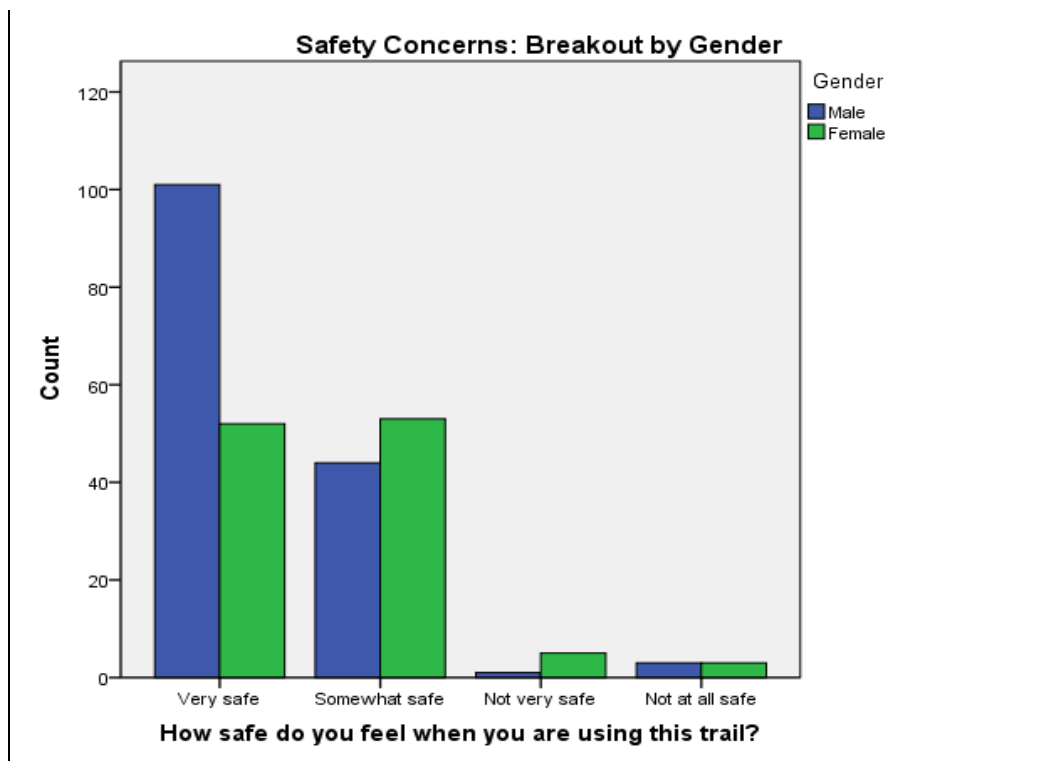


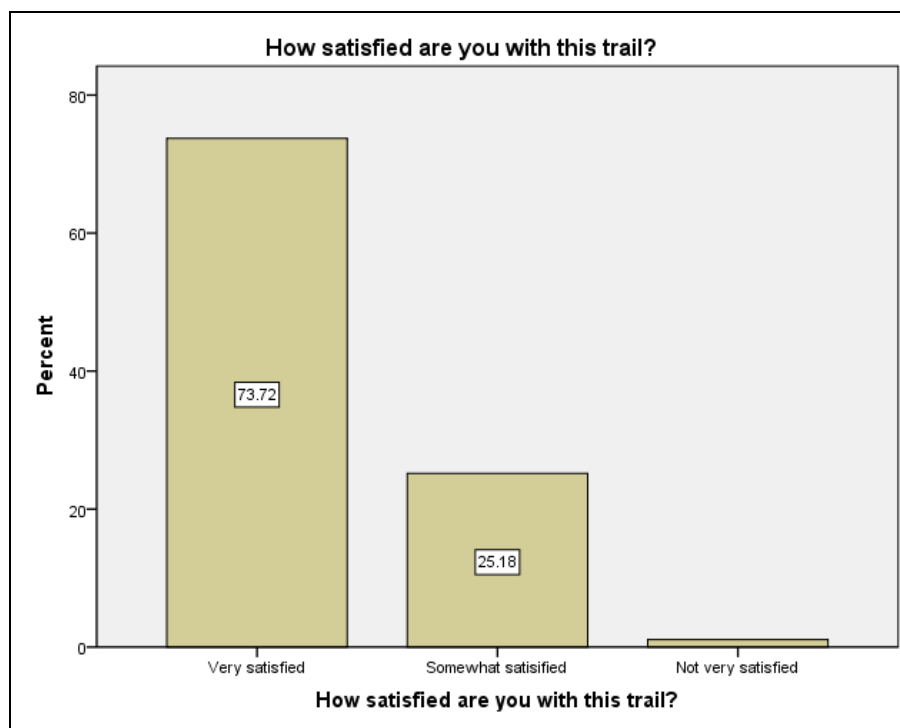
Chart 8. Gender Differences Regarding Greenway Safety



In an open-ended follow-up question, survey respondents who stated that they felt unsafe when using the trail were asked to describe the reasons for their concern. Respondents who answered the survey at the Shirley James Gateway listed three reasons: (1) the presence of homeless people under the bridges; (2) people using drugs in the area; and (3) some uncertainty about safety in some of the more remote areas of the Greenway. Individuals who answered the survey in Garvin Park also listed three reasons: (1) the presence of “unsafe people” and crime in the area; (2) the lack of a police presence in the area; and (3) the lack of other people on the trail. It should be noted that safety issues did not seem to be a concern for respondents who answered the survey at the Pagoda trailhead.

Overall Satisfaction Levels. Close to 100 percent of the survey’s respondents (98.9 percent) indicated that they were “very satisfied” (73.7 percent) or “somewhat satisfied” (25.2 percent) with the Pigeon Creek Greenway Passage. Only three people (1.1 percent) responded that they were “not very satisfied” with the trail and no one indicated that they were “not satisfied at all.”

Chart 9. Respondents’ Satisfaction Levels



Survey respondents were given the opportunity to discuss issues that affected their satisfaction levels. Prevalent concerns among respondents who answered the survey at the **Pagoda Trailhead** and/or the **Shirley James Gateway** included: (1) the need for bathrooms, trash cans, and water fountains; (2) the need to keep motorized vehicles off the Greenway; (3) the length of the trail; and (4) animal excrement along the trail. There was also some concern that the bicycles went “too fast” on the trail. Prevalent concerns among respondents who answered the survey at

the **Garvin Park Trailhead** included: (1) a need to repair the asphalt on the trail and (2) better landscaping at the trailhead.⁶

Survey respondents were also asked to list what changes or improvements they would like to see along the **entire Greenway**. Common themes included: (1) more safety features such as better lighting, cameras, and increased patrols by police officers; (2) the addition of water fountains and public restrooms along the Greenway; (3) less trash and vandalism along the trail; (4) finishing and/or extending the trail; (5) improving maintenance of the trail; (6) making the trail wider by adding a lane for cyclists; and (7) improving the smell. Additional comments included: adding bicycle rental stations; having entertainment (i.e., music, bands) on the Greenway, and having more animals such as ducks to feed.

Table 14. Requested Improvements, Pigeon Creek Greenway Passage

-
- More safety features (i.e., improved lighting, cameras, increased police patrols)
 - Adding public restrooms and water fountains
 - Less trash and vandalism
 - Finishing the construction of the Greenway
 - Extending the Greenway
 - Improving the maintenance of the Greenway
 - Making the Greenway wider by adding a lane for cyclists
 - Improving the smell
-

Finally, survey respondents were asked where **the next “link”** of the Greenway should be built. The responses can be summarized into three categories: (1) east towards Angel Mounds, Marina Pointe, and Newburgh; (2) west towards the Burdette Park/USI; and (3) north towards the Stringtown Road area. Additional respondents stated that the connection between Lamasco and Garvin Park needed to be completed and that the Greenway should loop around the City of Evansville.

⁶ One individual listed several concerns: (1) the need for water fountains; (2) bigger playgrounds; (3) dogs using the bathroom on the trail; and (4) the need to finish construction of the trail.

RECOMMENDATIONS

Throughout the Pigeon Creek Greenway Usage Study of the Pagoda Trailhead, the Shirley James Memorial Gateway Plaza, and the Garvin Park Trailhead, users provided valuable insight on ways to enhance and improve on three inception areas. It is recommended,

- To have additional safety features added to the trail including improved lighting, cameras and increased police patrols. Safety issues were of most concern in the Shirley James Memorial area due to the presence of “unsafe people,” which may include the homeless, and crime in the area.
- To install public restrooms and water fountains along all parts of the Pigeon Creek Greenway.
- To be less trash and vandalism along the Pigeon Creek Greenway. It is recommended the Pigeon Creek Greenway passage to add additional trash receptacles on the trail and to have a plan to pick-up trash on a consistent basis (including along the Ohio River). In addition, there needs to be a plan to fix items that have been vandalized on the trail in a timely manner.
- To develop and implement a maintenance plan to repair the Pigeon Creek Greenway Passage. There are several areas of the trail at Garvin Park that are in need of repair.
- To provide more picnic tables, benches, and landscaping to many areas of the Pigeon Creek Greenway passage.
- To minimize the smell of the Pigeon Creek Greenway Passage.
- To finish the construction of the Pigeon Creek Greenway Passage between Lamasco Park and Garvin Park.
- To extend the Pigeon Creek Greenway passage with individuals identifying (1) east towards Angel Mounds, Marina Pointe, and Newburg; (2) west towards the Burdette Park/USI; and (3) north towards the Stringtown Road area.

Appendices

APPENDIX A. HOURLY COUNTS, PAGODA & GARVIN TRAILHEADS COMBINED

	9/24	9/25 ¹	9/26 ²	9/27	9/28 ³	9/29	9/30
7 a.m.	20	20	32	5	1	221	29
8 a.m.	19	8	23	5	5	355	37
9 a.m.	30	13	8	3	11	63	37
10 a.m.	30	20	16	4	15	84	75
11 a.m.	58	43	45	3	18	61	65
Noon	77	51	61	6	43	67	65
1 p.m.	44	43	29	2	43	62	81
2 p.m.	23	9	19	2	27	34	122
3 p.m.	61	**	40	30	**	34	133
4 p.m.	64	**	57	33	**	20	119
5 p.m.	52	**	28	24	**	6	104
6 p.m.	40	**	**	28	**	2	52
Total	518	283	358	145	163	1,009	919
Average ⁴	43	24	33	12	20	84	77

¹ Breakout data by hour was not collected from 3-7 p.m. at the Pagoda Trailhead on this date. The total number of users for the 3-7 p.m. shift was 76.

² Due to severe thunderstorm warnings, the census takers were sent home at 6 p.m. on this date.

³ Data based on Pagoda Trailhead, 7 a.m. – 3 p.m.

⁴ Average number of users per hour per day.

APPENDIX B. HOURLY COUNTS, SHIRLEY JAMES GATEWAY¹

	9/24	9/25	9/26	9/27	9/28	9/29	9/30
7 a.m.	**	**	8	5	3	**	5
8 a.m.	**	**	14	12	5	32	19
9 a.m.	**	**	10	5	3	7	7
10 a.m.	**	**	4	9	2	40	23
11 a.m.	**	12	8	12	7	8	18
Noon	**	10	13	3	10	35	20
1 p.m.	**	4	2	3	6	30	22
2 p.m.	**	10	3	6	7	34	45
3 p.m.	**	9	10	30	8	**	22
4 p.m.	**	8	14	6	16	**	50
5 p.m.	**	11	8	10	0	**	34
6 p.m.	**	15	**	159	7	**	**
Total	**	79	94	260	74	186	265
Average	**	10	9	22	6	27	24

¹ Due to safety considerations, there were several dates and times when the census takers were moved to other locations during the study.

APPENDIX C. MANUAL COUNTING FORM

Direct User Manual Counting Form

Day: _____ Date: _____ Time: _____
Location: _____ Counter name: _____

Time	Sex	WALK	JOG	BIKE	ROLLER BLADE	STROLLER	OTHER
7:00-7:59	M						
	F						
8:00-8:59	M						
	F						
9:00-9:59	M						
	F						
10:00-10:59	M						
	F						
11:00-11:59	M						
	F						
12:00-12:59	M						
	F						
1:00-1:59	M						
	F						
2:00-2:59	M						
	F						
3:00-3:59	M						
	F						
4:00-4:59	M						
	F						
5:00-5:59	M						
	F						
6:00-6:59	M						
	F						

APPENDIX D. USER INTERCEPT SURVEY

The Interview – Question by Question Specifications

This section lists the text for each of the questions in the survey along with explanatory information that may be helpful to you when you conduct the interview. The explanatory information is in bold type.

Introduction

Hello. My name is _____ and I am a student at the University of Southern Indiana. I am working with the Evansville Parks Board and USI to conduct **a usage study of the Pigeon Creek Greenway**. The information that I collect today will be used to help the Parks Board maintain and improve the Greenway. I would like to ask you a few questions which will take less than 10 minutes of your time. Before we start, I would like to assure you that this interview is confidential and completely voluntary. If at any time and for any reason, you would prefer not to answer any questions, please feel free not to. If at any time you would like to stop participating, please tell me and we will end the interview. If you have questions, you are free to ask them now. If you have questions later, you may contact the study's sponsors by using the information on this sheet. [Student hands the participant a contact card] Are you interested in participating in this study?

SURVEY QUESTIONS

1. Is this your first time using this trail?

- ☐ [1] Yes → Skip to Question 1B
- ☐ [0] No → Go to Question 1A

1A. How often do you use this trail?

- ☐ [1] At least 3 times a week
- ☐ [2] Once or twice a week
- ☐ [3] 2 or 3 times a month
- ☐ [4] Once a month or less

1B. Do you think you will use this trail again?

- ☐ [1] Yes → Skip to Question 2
- ☐ [0] No → go to Question 1C

1C. Why won't you be using this trail again?

Interviewer Directions: Give the respondent enough time to think and answer. If your respondent has a problem with giving exact reasons after some time, ask "would it be a personal reason or does it have anything to do with the trail?" Remember! You wait first and ask exactly as worded here only if a respondent is willing to answer but has a problem with reasons.

2. What kinds of activities do you usually do on the trail? If this is your first time using the trail, what activity did you do today?

Interviewer Directions: Do not read the categories; check them off as the respondent answers.

- ☐ [1] Jogging
 - ☐ [2] Bicycling
 - ☐ [3] Roller Blading
 - ☐ [4] Walking
 - ☐ [5] Other *[Interviewer: list response below]*
-
-

Interviewer: If the respondent lists more than one activity go to Question 2B. If not, go directly to Question 3. NOTE: For first time users, skip question 2B.

- 2B. Of the activities that you have listed, which one do you do most often?

- ☐ [1] Jogging
 - ☐ [2] Bicycling
 - ☐ [3] Roller Blading
 - ☐ [4] Walking
 - ☐ [5] Other *[Interviewer: list response below]*
-
-

3. How much time do you usually spend on the trail? If this is your first time using the trail, how much time will you spend on the trail today?

Interviewer: Do not read the categories and mark after your respondent answers. If a respondent says he/she spends more time during weekend than weekdays, ask again specifically "how much time do you usually spend on the trail on (your interview day)." If a respondent is not sure, clarify that spending time only includes his/her activities.

- ☐ [1] 10 to 20 minutes
- ☐ [2] 21 to 30 minutes
- ☐ [3] 31 to 40 minutes
- ☐ [4] 41 to 50 minutes
- ☐ [5] 51 to 60 minutes
- ☐ [6] More than 1 hour

4. Do you usually come to this trail from your home, your place of employment, your school, or somewhere else? If this is your first time using the trail, where did you come from today?

- ☐ [1] Home
- ☐ [2] Place of employment
- ☐ [3] School
- ☐ [4] Somewhere else: _____

5. How do you usually get to the trail? If this is your first time on the trail, how did you get to the trail today?

Interviewer: Do not read the categories and mark after your respondent answers. If respondent is not sure, remind him/her to answer the most common modes of transportation.

- ☐ [1] Car
- ☐ [2] Bus
- ☐ [3] Bicycle
- ☐ [4] Walk
- ☐ [5] Other: _____

6. How many minutes does it typically take you to get to this trail from _____ [his or her answer to Question 4]?

Number of minutes: _____

7. How satisfied are you with this trail? Would you say very satisfied, somewhat satisfied, not very satisfied, or not at all satisfied?

- ☐ [1] Very satisfied → Skip to Question 8
- ☐ [2] Somewhat satisfied → Skip to Question 8
- ☐ [3] Not very satisfied → Go to Question 7A
- ☐ [4] Not at all satisfied → Go to Question 7A

- 7A. Why are you unsatisfied with the trail?

Interviewer: Write down the answer as given to you. Try to get at least one reason.

8. Overall, how safe do you feel when you are using this trail? Would you say very safe, somewhat safe, not very safe, or not at all safe?

- ☐ [1] Very safe → Skip to Question 9
- ☐ [2] Somewhat safe → Skip to Question 9
- ☐ [3] Not very safe → Go to Question 8A
- ☐ [4] Not at all safe → Go to Question 8A

- 8A. Why do you feel unsafe when using the trail?

Interviewer: Write down the answer as given to you. Try to get at least one reason.

9. Have you been to the Shirley James Memorial?

- ☐ [1] Yes → Go to Question 9A
- ☐ [2] No → Skip to Question 10

9A. What did you like about the Memorial site?

Interviewer: Write down the answer as given to you. Try to get at least one item.

9B. What could be improved at the Memorial site?

Interviewer: Write down the answer as given to you. Try to get at least one item.

10. Have you been to the Marchand Bridge Overlook?

- ☐ [1] Yes → Go to Question 10A
- ☐ [2] No → Skip to Question 11

10A. What did you like about the Overlook?

Interviewer: Write down the answer as given to you. Try to get at least one item.

10B. What could be improved at the Overlook site?

Interviewer: Write down the answer as given to you. Try to get at least one item.

11. How satisfied are you with the signage along the trail? By signage, I mean the history and information signs located along the Greenway. Are you very satisfied, somewhat satisfied, not very satisfied, or not at all satisfied?

- ☐ [1] Very satisfied → Skip to Question 12
- ☐ [2] Somewhat satisfied → Skip to Question 12
- ☐ [3] Not very satisfied → Go to Question 11A
- ☐ [4] Not at all satisfied → Go to Question 11A

11A. Why are you unsatisfied with the signage?

Interviewer: Write down the answer as given to you. Try to get at least one item.

12. How did you learn about the Pigeon Creek Greenway?

Interviewer: Write down the answer as given to you. Try to get at least one item.

13. What changes or improvements would you like to see made to the Greenway?

Interviewer: Try to get at least one item.

14. In your opinion, where should the Parks Board build the next “link” of the Pigeon Creek Greenway?

Interviewer: Try to get at least one location.

DEMOGRAPHICS

INTERVIEWER SCRIPT: To help us gain a better understanding about the people who use the Pigeon Creek Greenway, I have a few final questions.

15. What is your age? _____

16. Would you mind telling me your race or ethnic origin? Are you Caucasian, African American, Latino or Latina, American Indian or Alaska native, Asian or Pacific Islander, or something else?

- ☐ [1] Caucasian
- ☐ [2] African American
- ☐ [3] Latino/a
- ☐ [4] American Indian | Alaskan Native
- ☐ [5] Asian | Pacific Islander
- ☐ [6] Other | List response: _____

17. **What is the highest level of education that you have completed?**
- ☐ [1] Less than high school
 - ☐ [2] High school diploma | GED
 - ☐ [3] Technical | Trade School
 - ☐ [4] Some college
 - ☐ [5] Bachelor's Degree
 - ☐ [6] Graduate Degree [JD, MD, Master's degree, PH.D.]
18. **Are you currently employed, temporarily laid off, unemployed, retired, a student, homemaker, or something else?**
Interviewer: If a respondent says he/she has more than one status, ask to pick only one that she/he thinks describes him/her well.
- ☐ [1] Currently employed
 - ☐ [2] Currently unemployed
 - ☐ [3] Temporarily laid off
 - ☐ [4] Retired
 - ☐ [5] Student
 - ☐ [6] Homemaker | Stay at Home Parent
 - ☐ [7] Other | Please List: _____
19. **To better understand the type of people who use this trail, we would like to know the general range of income of all people who participate in this study. As with all of your answers, this information is completely confidential and will be used only to group respondents. Now, thinking about your family's total income from all sources, which of the following income ranges is closest to your family's 2011 total income from all sources? You may stop me when I get to the right category.**
- ☐ [1] Less than \$10,000
 - ☐ [2] \$10,000 to \$19,999
 - ☐ [3] \$20,000 to \$29,999
 - ☐ [4] \$30,000 to \$39,999
 - ☐ [5] \$40,000 to \$49,999
 - ☐ [6] \$50,000 to \$59,999
 - ☐ [7] \$60,000 to \$69,999
 - ☐ [8] \$70,000 to \$79,999
 - ☐ [9] \$80,000 to \$89,999
 - ☐ [10] \$90,000 to \$99,999
 - ☐ [11] \$100,000 to \$149,999
 - ☐ [12] \$150,000 or more

FOR THE INTERVIEWER TO COMPLETE

20. **Respondent's gender**
- ☐ [1] Male
 - ☐ [2] Female

21. Was the respondent alone or with other people?

- ☐ [0] Alone → End survey here
- ☐ [1] With one other person → Answer Question 20
- ☐ [2] With two other people → Answer Question 20
- ☐ [3] With three or more people → Answer Question 20

22. Where any of these people children (middle school age or under)?

- ☐ [1] Yes
- ☐ [2] No

23. If so, how many children? List: _____

24. Where any of the children in a stroller?

- ☐ [1] Yes
- ☐ [2] No

Time Completed: _____

Circle Location: 4F | SJ | GP