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# Lackawanna River Heritage Trail

## 2016 User Survey and Economic Impact Analysis



Prepared by:

**URBAN PARTNERS**

December 2016

Prepared for:



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### 2016 User Survey and Economic Impact Analysis

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## Summary of Findings

The Lackawanna River Heritage Trail (LRHT) generated significant usage in 2016 and had a significant positive economic impact on Lackawanna County and the Commonwealth of Pennsylvania. Key findings of this analysis include:

### Trail Usage Characteristics

- 84.8% of trail users reside in Lackawanna County, up from 82.2% in 2009.
- The current gender breakdown of trail users favors women 56.6% to 43.4% men, a reversal in trends compared to 2009.
- 99.0% of users are familiar with the LRHT, up significantly from 63.7% in 2009.
- 92.7% of respondents say they have used some segment of the trail within the past year, compared to just 66.5% of respondents in 2009.
- The most popular segment among users surveyed is the Lower Valley section, from Taylor to Elm Street, where 49.1% of respondents said they use the trail often. In 2009, the Mid-Valley section received the highest visitation, where 41.5% indicated frequent usage.
- Among the LRHT users, safety is the most important issue, with 39.0% of respondents saying that overall safety and security of the trail is their highest concern.
- More than 75% of respondents use the trail on both weekends and weekdays, up from 63.4% during the 2009 survey period.
- More than 48% of respondents use the trail for 1 to 2 hours, up from 43.5% in 2009.
- The primary activity on the LRHT is walking/hiking, favored by 66.0% of the respondents, up from the 2009 survey period when 60.0% used the trail for walking/hiking.
- 64.0% of trail users drive from home, significantly up from 52.9% during the 2009 survey period. At the same time, 23.4% typically walk/run/bike from home, significantly down from 39% during the 2009 survey period.
- While 53.5% of the respondents report that they did not purchase any sundries on their trip to the trail, 31.1% say they purchased water or a beverage, 7.4% purchased a meal, 1.6% picked up sandwiches, and 2.7% bought snack foods.
- The average amount spent on these items during trail users' most recent trip is \$4.41 per person. In 2009, trail users spent an average of \$8.87, or twice the amount, on the same items.
- While 29.1% report that they did not purchase anything related to trail usage (compared to 30.5% in 2009), 56.0% say they bought footwear, 44.8% purchased clothing, 27.2% purchased a bike, and 25.0% purchased bicycle supplies.
- These purchases amount to an average of \$275.58 per person among respondents, down from \$313.08 in 2009.

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- Just 2.4% of users of the trail incorporated an overnight stay into their visit to the trail.
  - 0.5% (3 respondents) stayed in a campground or state park, and another 0.5% (3 respondents) stayed overnight at a motel/hotel or bed & breakfast.

### Trail Usage Estimates

- The weekly total estimate of users along the entire LRHT amounts to approximately 8,370, compared to 3,500 in 2009 – an increase of 139%.
- The estimated number of yearly trail visits accounting for the different seasons amounts to approximately 306,500.
- At least 28 race and training events prompted an additional 8,500 net visits to the trail.
- In total, there were approximately 315,000 visits to the LRHT in 2016, a 145% increase over the 128,000 estimate in 2009.

### Economic Impact

- The LRHT generated a total economic impact of \$91.9 million in 2016 for the Commonwealth of Pennsylvania, including Lackawanna County, produced by the spending of trail users in conjunction with their visit to the trail. This is composed of direct and indirect impacts:
  - The direct economic impact of the LRHT is \$64.6 million for the Commonwealth of Pennsylvania, approximately \$54.8 million of which is for Lackawanna County. By comparison, the direct economic impact of the LRHT in 2009 was \$28.3 million for the Commonwealth (\$31.8 million in 2016 dollars) for an increase of 103%.
  - The indirect economic impact is \$27.3 million for the Commonwealth of Pennsylvania, \$16.7 million of which is for Lackawanna County. The indirect impact was not calculated in 2009.

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## Introduction

Urban Partners was retained by Lackawanna Heritage Valley (LHV) to assess the use and economic benefit generated by the Lackawanna River Heritage Trail (LRHT) during 2016. This analysis serves as an update to a similar study prepared in 2009.

Since 2009, several new segments of trail have been completed, including the southernmost section from Depot Street in Taylor to Elm Street in Scranton; the Riverwalk section in Scranton; the levee portion in Scranton from Olive Street to Parker Street, and two miles from Archbald to Jermyn. In addition, since 2009, the LHV has incorporated the entire D&H Rail Trail from Simpson to New York State into the LRHT system. In total, the LRHT now spans a length of 70 miles, 55 miles of which are improved off-street trail and 15 miles of which are part of the street network. LHV is continuing its work to complete new off-street sections where possible.

This analysis is informed by two surveying efforts – an intercept survey designed to monitor trail user characteristics and benchmark the economic impacts of the LRHT through spending patterns of users, and trail counts conducted to estimate the number of trail users. Both techniques were also used in 2009 and 2016.

The report consists of three sections to evaluate the use and economic impact of the LRHT in 2016. The first section analyzes the intercept survey and compares user characteristics between 2009 and 2016; the second section estimates the number of trail users based on the trail counts; and the last section identifies both the direct and indirect economic impact of the LRHT, comparing it to 2009.

## Trail Survey Results and Analysis

### Trail Area Demographics

The LRHT is located in Lackawanna County, from where it draws most of its users. The trail also attracts users from adjacent counties and beyond. **Table 1** shows key trail usage-related demographics for Lackawanna County and surrounding counties.

**Table 1. Demographic Profile of Lackawanna County and Surrounding Counties**

	<u>Lackawanna</u>	<u>Luzerne</u>	<u>Susquehanna</u>	<u>Wyoming</u>	<u>Monroe</u>	<u>Pike</u>	<u>Wayne</u>
Population (2010 Census)	213,731	319,120	43,343	28,262	168,080	56,993	52,302
Population (2015 est.)	213,459	320,095	42,369	28,147	167,881	56,632	51,642
Median Household Income (2015 est.)	\$46,271	\$45,897	\$50,477	\$51,004	\$57,365	\$60,180	\$49,919
Households (2015 est.)	85,034	128,692	17,487	10,894	57,297	21,079	19,306
Persons per Household (2015 est.)	2.41	2.39	2.41	2.52	2.89	2.66	2.47
Population per Square Mile (2010 Census)	467.1	360.4	52.7	71.2	279.2	105.3	72.8

Source: American Fact Finder and U.S Census QuickFacts

As the table indicates, population decreased slightly in most of the counties surrounding the LRHT from 2010 to 2015, though more significantly in Susquehanna County with a loss of 2.3%. Lackawanna County decreased by less than 1%. Luzerne County experienced a very modest increase of less than 1%.

Lackawanna County had the second-lowest estimated median household income in 2015 at \$46,271, after Luzerne County's \$45,897. These counties are the most urban in the region, home to the cities of Scranton and Wilkes-Barre. The more rural counties to the east, particularly Monroe and Pike, had the highest median household incomes, likely influenced by residents commuting to the New York City area for work.

The number of persons per household was relatively similar among most of the counties compared, averaging around 2.5. Monroe County had a slightly higher number of almost 2.9. Despite significant differences in land area, population per square mile was highest among the counties with the largest population, including

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Lackawanna, Luzerne, and Pike. Lackawanna County had the highest at 467.1 with a significantly smaller land area than Luzerne, which had a higher population. The geographically large but very rural Susquehanna County had the lowest population per square mile of just 52.7.

## Survey Results

In the fall of 2009, LHV conducted an intercept survey for users of the LRHT's various existing segments from Scranton to Union Dale. The survey was designed to monitor user characteristics and to benchmark the economic impacts of the LRHT. That several-month process captured 500 survey respondents.

In 2016, LHV initiated a new effort to update the 2009 analysis to reflect changes in usage and related spending patterns. From March 29, 2016, to November 16, 2016, LHV administered an updated user survey for users of the LRHT, primarily through Survey Monkey and advertising on social media. This analysis examines surveys received through November 10, 2016, capturing a snapshot of trail user characteristics from early spring through late fall. A total of 770 users responded to the survey during this latest seven-month effort. Because several questions called for multiple responses and some survey respondents did not answer all of the questions, the percentages presented in this analysis are based on the number of responses to each individual question, not all 770 surveys.

### 1. What is your zip code?

84.8%	Lackawanna County
10.5%	Counties Surrounding Lackawanna County
4.7%	Locations Beyond Surrounding Counties

### 2. What is your gender?

43.4%	Male
56.6%	Female

### 3. Please identify your age group:

0.4%	15 and Under
2.9%	16 to 25
19.7%	26-35
24.6%	36-45
24.8%	46-55
19.2%	56-65
8.4%	66 or older

### 4. How do you identify your race or ethnicity?

99.1%	White
0.3%	Hispanic or Latino
0.0%	Black or African American
0.0%	Asian
0.3%	American Indian
0.3%	Other



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5. Are you familiar with the Lackawanna River Heritage Trail (LRHT)?

73.1% Yes  
26.9% No

6. Have you heard about the Lackawanna Heritage Valley National & State Heritage Area (LHV)?

71.2% Yes  
28.8% No

7. Are you familiar with the work of the Lackawanna Heritage Valley National & State Heritage Area (LHV)?

86.8% Yes  
13.2% No

8. Do you know that Lackawanna Heritage Valley builds and maintains the LRHT?

92.3% Yes  
7.5% No

9. How long have you been using the LRHT?

8.2% Less than 6 months  
8.0% 6 to 11 months  
58.6% 1 to 5 years  
13.7% 6 to 10 years  
5.8% 11 to 15 years  
5.9% More than 15 years

10. Have you used the LRHT (including the D&H Rail-Trail) in the past 12 months?

92.7% Yes  
7.3% No

11. How often do you use following sections of trail?

**Lower Valley (Depot Street, Taylor to Elm Street, Scranton)**

49.1% Often  
29.9% Sometimes  
21.1% Never

**Scranton Section (Elm Street to Parker Street)**

47.1% Often  
32.8% Sometimes  
20.1% Never

**Mid-Valley (Olyphant to Delaware Street, Jermyn)**

34.2% Often  
35.0% Sometimes  
30.8% Never

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**Upper Valley (Delaware Street, Jermyn to Morse Avenue, Simpson)**

16.1% Often  
34.2% Sometimes  
49.7% Never

**D&H Rail Trail (Morse Avenue, Simpson to New York State)**

4.5% Often  
24.5% Sometimes  
71.0% Never

**12. How often will you use following completed sections of trail when they are completed?**

**Fell Township Section (2.2 miles north of Carbondale Riverwalk)**

11.1% Often  
43.4% Sometimes  
45.5% Never

**Upper Valley Trail (Downtown Jermyn through Mayfield to Carbondale)**

19.7% Often  
44.8% Sometimes  
35.5% Never

**Mid-Valley (Dickson City – Eagle Lane to Lackawanna Avenue)**

31.3% Often  
44.6% Sometimes  
35.1% Never

**Mid Valley (Olyphant – Eddy Creek to Valley Avenue)**

29.1% Often  
44.6% Sometimes  
24.3% Never

**Scranton Levee (Parker Street to Olive Street)**

48.0% Often  
33.5% Sometimes  
18.5% Never

**Striped Bike Lanes (in Scranton, Olyphant, or Carbondale)**

27.5% Often  
40.2% Sometimes  
32.3% Never

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**13. Please rate how concerned you are about:**

**Overall Safety and Security of the LRHT**

9.8%	1 - Least Concerned
9.2%	2
19.5%	3
22.5%	4
39.0%	5 - Most Concerned

**Safety of Crossing Street using the LRHT**

8.8%	1 - Least Concerned
13.0%	2
21.1%	3
25.0%	4
32.1%	5 - Most Concerned

**Connections to Downtown Scranton/Shopping**

28.7%	1 - Least Concerned
20.5%	2
27.2%	3
13.8%	4
10.0%	5 - Most Concerned

**Connections to Medical Facilities**

32.7%	1 - Least Concerned
24.7%	2
26.4%	3
9.5%	4
6.7%	5 - Most Concerned

**Connections to Educational Institutions**

36.5%	1 - Least Concerned
23.0%	2
26.4%	3
8.9%	4
5.2%	5 - Most Concerned

**Connections to Other Communities**

17.2%	1 - Least Concerned
15.4%	2
32.7%	3
21.1%	4
13.7%	5 - Most Concerned

**14. Generally, when do you use the trail?**

5.9%	Weekdays
17.0%	Weekends
77.1%	Both

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**15. How much time do you spend on the trail each visit?**

1.0%	Less than 30 Minutes
41.6%	30 Minutes to 1 Hour
48.8%	1 to 2 Hours
8.6%	More than 2 Hours

**16. What is your primary activity on the LRHT? (Respondents were allowed to select multiple choices).**

66.0%	Walking/Hiking
53.4%	Biking
59.3%	Running
28.5%	Walking with Child or Pet
2.6%	XC Skiing/Snowshoeing
1.0%	Rollerblading
0.2%	Horseback Riding
0.6%	Snowmobiling
26.4%	Health and Wellness
12.7%	Socializing
22.1%	Fitness Training

**17. What is your approximate round-trip mileage on the trail each visit?**

1.0%	Under 1 mile
27.7%	2 to 3.1 miles
41.6%	4 to 6 miles
17.0%	7 to 10 miles
10.0%	10 to 20 miles
2.9%	20+ miles

**18. Do any children under the age of 18 in your household use the trail?**

25.9%	Yes
74.1%	No

**19. What do your children use the trail for? (Respondents were allowed to select multiple choices).**

79.7%	Recreation
1.1%	Travel to School
4.0%	Travel to Friends/Store
53.6%	Health and Exercise

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**20. How do you usually travel to the trail?**

23.4%	Walk/Run/Bike from Home
2.2%	Walk/Run/Bike from Work
0.5%	Walk/Run/Bike from School
64.0%	Drive from Home
8.0%	Drive from Work
0.3%	Drive from School
0.0%	Public Transportation
1.6%	Other

**21. Would you be willing to pay an annual usage fee to help maintain the trail?**

55.8%	Yes
44.2%	No

**22. If yes, how much annually?**

\$43.06	Average Amount
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**23. During your most recent trip to the trail, did you purchase any of the following? Check all that apply.**

31.1%	Water/Beverages
2.8%	Candy/Snack Foods
7.4%	Meals at a Restaurant
1.6%	Sandwiches
62.1%	None of These
3.8%	Other

**24. Approximately how much did you spend per person on these items on your most recent visit?**

\$9.61	Average Amount
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**25. Has your use of the LRHT influenced your purchase of the following? Check all that apply.**

27.2%	Bike
25.0%	Bike Supplies
55.8%	Footwear
44.8%	Clothing
3.8%	Auto Accessories
0.6%	Rollerblades
40.3%	Nothing

**26. Approximately how much did you spend per person on the items from local stores and vendors in the past year?**

\$337.72	Average Amount
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**27. For your last visit to the trail, did your visit to the trail involve an overnight stay at a local site in one of the following?**

97.6%	Did Not Stay Overnight
1.4%	Friend/Relative's Home
0.5%	Campground/State Park
0.5%	Motel/Hotel
0.0%	Bed & Breakfast

**28. How many nights did you stay there?**

1.9 Average Amount (Just 8 responses)

**29. Approximately how much did you spend on overnight accommodations per night?**

Only one answer of \$200

### **Analysis of Results**

The vast majority of all survey respondents reside in Lackawanna County (84.8%), up notably from 82.2% in 2009. Another 10.5% originate from counties adjoining Lackawanna County, including Luzerne, Susquehanna, Wyoming, Wayne, Monroe, and Pike Counties, down from the 2009 figure of 11.2%. According to survey respondents, 4.7% reside in counties beyond those adjacent to Lackawanna County, compared to 4.4% in 2009. These locations include other counties in Pennsylvania, as well as communities in New York State and New Jersey. Based on these results, it is evident that the trail has become more of a local amenity for residents of Lackawanna County.

The current gender breakdown of trail users favors women 56.6% to 43.4% men, a reversal in trends compared to 2009 when men were the majority trail users during that period of surveying. Regarding the age profile of users, the largest cohort is the 46 to 55 year-old group, represented by 24.8% of users surveyed, slightly edging out the 36 to 45 year-old cohort which represented 24.6% of respondents. In 2009, the largest cohort was also the 46-55 year-old group, which comprised 23.4% of respondents at that time. Young adults aged 16 to 25 make up just 2.9% of trail users surveyed. Children under 15 years of age account for less than 1% of trail users surveyed, while those over 66 years old are more than 8% of the trail visitors.

Almost all respondents (99.0%) are familiar with the LRHT, up significantly from the 63.7% in 2009. Of the current respondents, 73.1% are familiar with LHV, down from 82% in 2009, and 92.5% know that LHV builds and maintains the LRHT. Most trail users (58.6%) have been using the LRHT for 1 to 5 years, while 13.7% have been using it for 6 to 10 years. Almost 6% have used the trail for more than 15 years, while a higher number – 8.2% have just started using the trail within the past 6 months. Within the past year, 92.7% of respondents say they have used some segment of the trail. This is up significantly from the 2009 survey when

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66.5% of respondents reported using the trail in the past year during that survey period.

Trail usage varies by trail segment, and tends to be the highest in the more populated areas, primarily Scranton. The most popular segment among users surveyed is the Lower Valley section, from Taylor to Elm Street, where 49.1% of respondents said they use the trail often. In 2009, the Mid-Valley section received the highest usage, where 41.5% indicated they use the trail often. The Scranton section, from Elm Street to Olive Street, is used often by 47.1% of respondents in 2016. By contrast, the section from Elm Street to 7<sup>th</sup> Avenue was used often by just 10.6% of respondents in 2009. The Mid-Valley section from Olyphant to Jermyn received the most responses for occasional use in 2016 at 35.0%, followed closely by the Upper Valley section between Jermyn and Simpson at 34.2%. Half of the respondents reported they never use the Upper Valley section and 70.1% said they never use the D&H Rail Trail.

In terms of undeveloped sections of the LRHT, the Scranton Levee from Olive Street to Parker Street appears to be the most anticipated section of trail, followed by the Dickson City and Olyphant sections in the Mid Valley, and the Fell Township section in the Upper Valley:

- 1) Scranton Levee from Olive Street to Parker Street — 48% of respondents say they would use this section often; 33.5% say they would use it sometimes.
- 2) Dickson City section of trail in the Mid Valley — 31.2% of respondents say they would use this section often; 44.6% say they would use it sometimes.
- 3) Olyphant section of trail in the Mid Valley — 29.1% of respondents say they would use this section often; 44.6% say they would use it sometimes.
- 4) Fell Township section of trail in the Upper Valley — 8.6% of respondents say they would use this section often; 44.8% say they would use it sometimes. (*Please note: the survey was not conducted on sections of the trail system that are under development in the Upper Valley, i.e. Carbondale, Fell Township*).

With regard to usage of striped bike lanes in Scranton, Olyphant or Carbondale, 27.5% of respondents say they would use striped bike lanes often; 40.2% say they would use them sometimes; and 32.3% say they would never use them.

Among the LRHT users, safety is the most important issue, with 39.0% of respondents (the highest percentage) saying that overall safety and security of the trail is their highest concern. Safety of crossing city streets using the trail is also a top concern for 32.1% of respondents. Just 5.2% indicate that connections to educational institutions are very important, while 36.5% say it is not a concern at all. Connections to Downtown Scranton and to medical facilities are similarly not a top concern to 28.7% and 32.7% of respondents, respectively.

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More than 75% of respondents use the trail on both weekends and weekdays, up from 63.4% during the 2009 survey period. Another 17.0% say they use the trail just on weekends and 5.9% use it on weekdays exclusively. More than 48% of respondents use the trail for 1 to 2 hours, up from 43.5% in 2009, while 41.6% use the trail for 30 minutes to 1 hour. The trail is used for more than 2 hours per visit by 8.6%, down from 9.6% in 2009.

The primary activity on the LRHT is walking/hiking, favored by 66.0% of the respondents, up from the 2009 survey period when 60.0% used the trail for walking/hiking. Running is almost as popular, with 59.3% reporting they use the trail for that purpose. This is significantly up from 2009 when just 29.1% used the trail for running. This change is likely a result of races and events, as well as the trail's increased use for training, as reported by 22.1% of the respondents. These preferred uses are followed by biking (53.4%), health and wellness (26.4%), and walking, specifically with a child or pet (28.6%). The majority of respondents – 41.6% - report their approximate round-trip mileage on the trail each visit as 4 to 6 miles, followed by 27.7% reporting their approximate mileage as 2 to 3 miles. Just over 1% reportedly use the trail for less than a mile. Less than 26% of the respondents reported that children under age 18 in their household use the trail. Of those children, 79.7% use it for recreation. Just 1.09% say they use the trail to get to school.

The means by which trail users get to the LRHT is an important consideration for determining potential economic impacts of the trail, particularly in regard to activities undertaken or dollars spent in conjunction with the use of the trail. Of all trail users, 64.0% drive from home, significantly up from 52.9% during the 2009 survey period. At the same time, 23.4% typically walk/run/bike from home, significantly down from 39% during the 2009 survey period. These changes may be reflective of more sections of the LRHT being opened and used since the 2009 survey. In 2016, new sections of trail attracted additional new users who had to drive to get to the trail.

The trail can impact the spending habits of its users. While more than half of the respondents – 62.1% - report that they did not purchase any sundries on their trip to the trail, 31.1% say they purchased water or a beverage, 7.4% say they purchased a meal, 1.6% picked up sandwiches, and 2.7% bought snack foods. The average amount spent on these items during trail users' most recent trip is \$9.61. In 2009, trail users spent an average of \$8.87 for an increase of spending per trip on soft goods of 8.3%.

Use of the trail impacts the purchase of larger-ticket items as well. While 40.3% report that they did not purchase anything related to trail usage (compared to 30.5% in 2009), 56.0% say they bought footwear, 44.8% purchased clothing, 27.2% purchased a bike, and 25.0% purchased bicycle supplies. These purchases amount to an average of \$337.72 per person among respondents, a 7.9%



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increase from 2009 when the average spending on hard goods was \$313.08 per person.

## Trail User Estimates

LHV also implemented an on-trail counting process to help quantify the actual number of LRHT users. Continued quantification of trail users on different segments at different times of the year eventually will provide a quality sample from which total annual trail usage can be approximated. LHV conducted fourteen sessions of on-trail user counts in 2016, capturing a snapshot of trail users as part of the upcoming multi-seasonal effort. For the on-trail tallies, users are categorized by gender, age, and mode of transportation.

From mid-March through early November 2016, LHV deployed several staff people with counters along various existing portions of the LRHT on different days of the week. Staff conducted 14 counting sessions at 6 locations between March and November as follows:

- The Broadway trailhead in Scranton on Friday, 3/18, from 3 to 4:45 p.m.
- The 7<sup>th</sup> Ave. trailhead in Scranton on Saturday, 3/26, from 9:45 to 11:30 a.m.
- The Laurel St. trailhead in Archbald on Wednesday, 3/30, from 2 to 4:00 p.m.
- 1.5 miles south of the Elm St. trailhead in Scranton on Thursday, 5/19, from 9 a.m. to 1:00 p.m.
- The Elm St. trailhead in Scranton on Friday, 5/20, from 1 to 2:30 p.m.
- The Laurel St. trailhead in Archbald on Sunday, 6/12, from 1 to 2:30 p.m.
- The Broadway trailhead in Scranton on Saturday, 7/9, from 9 to 12 p.m.
- Riverwalk in Scranton on Monday, 7/11, from 2:50 to 3:50 p.m.
- Riverwalk in Scranton on Wednesday, 8/10, from 1 to 3 p.m.
- The 7<sup>th</sup> Ave. trailhead in Scranton on Sunday, 8/21, from 9 to 11:15 a.m.
- The Delaware St. trailhead in Jermyn on Thursday, 10/6, from 10 a.m. to 2 p.m.
- The Laurel St. trailhead in Archbald on Saturday, 10/8, from 10 a.m. to 2 p.m.
- The Delaware St. trailhead in Jermyn on Thursday, 10/13, from 10 a.m. to 2 p.m.
- The Delaware St. trailhead in Jermyn on Saturday, 10/8, from 10 a.m. to 2 p.m.

The results indicate a total of 340 users over the course of 36.75 hours of tallying. The methodology to calculate the results is as follows:

Using the counts gathered, we determined average weekday and weekend users per hour for each of the six counting locations (see **Table 2**). Then, to determine the gross utilization on weekdays and weekends at each location, we multiplied the per-hour unit by 13 (representing the number of hours per day of usage during the peak season), and by 5 for weekdays and 2 for weekend days. The result is a

peak season weekly total estimate solely for the locations where counting occurred.

To calculate this usage estimate for the entire trail, we determined the average mileage for each trail user counted by using the LRHT survey, which indicated this average for each section of trail. We assumed that each trail user counted at all of the six locations accessed the trail in that trail section. This determined the number of users across a number of miles associated with each counting station/section along the entire trail. It also revealed gaps in a few locations where no users would have been counted because these locations extended beyond the typical distance traveled from the given counting location. These gaps occurred north of the Delaware Street trailhead in Jermyn, between the Laurel Street trailhead in Archbald and Riverwalk in Scranton, and between the Elm Street trailhead in Scranton and the trail's current southern end at Depot Street in Taylor.

To estimate users in these gaps on the trail, we applied a ratio averaged from the segments on each side of the gap (from the average mileage per visit), calculating a weekly total estimate for the gap locations (note: the gap to the north of the Delaware Street trailhead likely has a significantly higher usage than indicated since more than half the trail lies within that area and no counts were taken along that stretch).

**Table 2. Estimated Weekly LRHT Visits in 2016**

<u>Count Location</u>	<u>Weekday Average/hr.</u>	<u>Weekend Average/hr.</u>	<u>Gross # Users Weekdays</u>	<u>Gross # Users Weekends</u>	<u>Weekly Total Estimate</u>	<u>Average Mileage Per Visit</u>
Gap to the North					276	8.8
Delaware Street	2	3.8	130	98	228	7.2
Laurel Street	20	5.5	1300	143	1443	6.9
Gap in Count					1000	5.9
Riverwalk	7.3	10.7	477	280	757	5.9
7 <sup>th</sup> Avenue	13.1	19.3	852	501	1353	5.9
Broadway	10.9	16	709	416	1125	5.9
Elm Street	9.1	19.2	591	499	1090	6.0
Gap to the South					1098	6.0
Total					8,370	

Source: Lackwanna Heritage Valley, Urban Partners

Using this approach, the result is a weekly total estimate of users along the entire LRHT amounting to approximately 8,370, compared to 3,500 in 2009 – an increase of 139%.

Another factor that must be taken into account to determine total trail usage is time of year. Considering the climate of Northeastern Pennsylvania, we determined three “seasons” of usage – prime, winter, and shoulder (see **Table 3**). Using seasonal visitation projections from the Perkiomen Trail in Montgomery County as a guide (as described in the *User Survey and Economic Impact Analysis* prepared by the Rails-to-Trails Conservancy), we calculated the seasonal usage as a ratio of total yearly usage and created a multiplier or usage unit for the LRHT seasons.

**Table 3. Estimated LRHT Visits in 2016**

<u>Season</u>	<u>Ratio of Seasonal Perkiomen Trail Usage to Total</u>	<u>Multiplier for LRHT Seasons</u>	<u>Ratio to Prime Season for LRHT Usage</u>	<u>Weekly Total Estimated Users</u>	<u>LRHT Season in Weeks</u>	<u>Approximate Total LRHT Users</u>
Winter Season	.1	.03	0.299145	8,370	18	45,000
Shoulder Season	.12	.06	0.538462	8,370	6	27,000
Prime Season	.78	.11	1	8,370	28	234,400
Subtotal of Trail Visits						306,500
Actual Net Users from Training and Races						8,500
Annual Total						314,900

Source: Rails-to-Trails Conservancy, Lackawanna Heritage Valley, Urban Partners

We then divided this multiplier by the prime season multiplier (using the prime season as a base since that is the season when counts were taken), resulting in season-to-prime season ratios. We have assumed that a logical prime season is from mid-April to the late October, or approximately 28 weeks, and winter season is mid- November to mid-March, or approximately 18 weeks. The remaining shoulder, or in-between season, is approximately 6 weeks from late October to mid-November and from mid-March to mid-April. Multiplying the ratio to prime season by the weekly estimated users (determined from the surveys) by the LRHT season in weeks, results in an estimated number of trail visits by season. This total amounts to approximately 306,500.

Throughout the year, including the winter and shoulder seasons, the LRHT hosts numerous running races as well as group training events, significantly adding to

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the number of trail visits. Following are the events and approximate participation in order of dates:

- Shiver by the River #1 (1/23/16): 461 runners
- Shiver by the River #2 (1/30/16): 81 runners
- Run Around Scranton (3/17/16): 170 runners
- Teal Ribbon 5K (4/3/16): 93 runners
- Scranton Half-Marathon (4/10/16): 2,546 runners
- Griffin Pond Furry Friends 5K (4/23/16): 110 runners
- Tour de Scranton (4/29/16): 628 runners
- Goodwill 5K (5/22/16): 55 runners
- Purple Stride of Northeastern PA (6/11/16): 1,020 participants
- Run Around Scranton Ale Mary's (6/16/16): 222 runners
- Run Around Scranton July (6/21/16): 240 runners
- AJ Giombetti Memorial (8/13/16): 75 runners
- Prosper 5K (9/10/16): 43 runners
- D&H Distance Run (9/11/16): 256 runners
- Run Around Scranton Sweeney Strong (9/22/16): 193 runners
- ACT 5K (9/25/16): 65 runners
- Heritage Explorer Bike Tour (9/25/16): 225 bicyclists
- Run for Roger (10/1/16): 89 runners
- Steamtown Marathon (10/9/16): 1,728 runners
- Recovery is Hope (10/15/16): 68 runners
- Run Around Scranton Mickey Gannons (10/20/16): 241 runners
- 5Kate (10/30/16): 175 runners
- Run Against Hunger (11/12/16): 373 runners
- Run Around Scranton Ugly Christmas Sweater (11/23/16): 359 runners
- ThanksGiving Cancer Run (11/27/16): 124 runners
- St. Nick's 5K (12/3/16): 279 runners
- Running with the Santas (12/17/16): 175 runners
- Barrier Breakers/Half Marathon training: 1,516 runners

For each of these events, we calculated the net number of runners by subtracting the gross utilization per day of the trail visitors in that section for that season from the event participation total, resulting in a net usage for the event. The net usage for all the above events totals approximately 8,500.

Combining the weekly estimated total users by season with the actual net usage for events, we estimate **approximately 314,900 visits to the Lackawanna River Heritage Trail in 2016**. This is a 146% increase over the 128,000 estimate in 2009.

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## Economic Impact

The total economic impact of the LRHT consists of two components – direct and indirect. Direct impact is the initial round of spending by trail users on non-durable consumable “soft goods” (e.g. food, water, etc.) and durable “hard goods” (bicycles, equipment, clothing, etc.) affiliated with the use of the trail. The changes in inter-industry purchases as a result of the direct effect are referred to as the indirect impact. For example, vendors of these items will purchase goods and services from suppliers and other vendors, who in turn make purchases of goods and services. Indirect spending includes the induced effect, which refers to the impact generated by increased wages as a result of direct and indirect impacts. These wages in turn will pay for local goods and services, creating another round of economic impact. This process continues until leakages eventually stop the cycle. For the 2009 analysis, only the direct economic impact was measured and not the indirect impact. Therefore, only the direct economic impact of the LRHT can be compared between 2009 and 2016.

### Direct Economic Impact

According to the 2016 trail intercept survey, while 62.1% reported that they did not purchase any sundries on their trip to the trail, compared to 72.6% in 2009, 31.1% said they purchased water or a beverage (compared to 20.6% in 2009), 7.4% said they purchased a meal (compared to 9.3% in 2009), 2.8% bought snack foods (compared to 6.2% in 2009), and 1.6% picked up sandwiches (compared to 3.4% in 2009). The average amount spent on these items during trail users’ most recent trip is \$9.61. In 2009, trail users spent an average of \$8.87 for an increase in spending per trip on soft goods of 8.3%.

Use of the trail impacts the purchase of larger-ticket “hard goods” items as well. While 40.3% reported that they did not purchase anything related to trail usage (compared to 30.5% in 2009), 56.0% said they bought footwear (up from 27.1% in 2009), 27.2% purchased a bike (up from 14.9% in 2009), 44.8% purchased clothing (compared to also 14.9% in 2009), and 25% purchased bicycle supplies (compared to 11% in 2009). These purchases amount to an average of \$337.72 per person among respondents, a 7.9% increase from 2009 when the average spending on hard goods was \$313.08 per person.

**Table 4** takes the data provided on hard and soft goods and extrapolates the purchases over a range of annual trail visitation. Hard good purchases are not usually made on an annual basis but they represent a significant expenditure figure. Soft goods purchases do represent annual expenditures because they are made on a trip-basis by trail users.

Table 4. Direct Economic Impact of LRHT Purchases, 2016.

<u>Category</u>	<u>% of Visitors Purchasing</u>	<u>Avg. \$ Spent</u>	<u>Total</u>
Estimated # of Users			314,900
Hard Goods	59.7%	\$337.72	\$63,499,000
Soft Goods	37.9%	\$9.61	\$1,147,000
Total			\$64,646,000

Source: Urban Partners

As the table shows, the estimated number of annual trail users is 314,900. To determine the direct economic impact of their purchases related to the trail, we multiply the percentage of users purchasing hard goods by the average amount spent on the goods. The same calculation is performed for soft goods. The result is a total of approximately \$63.5 million spent on hard goods over the last year in conjunction with use of the LRHT, and approximately \$1.1 million spent on soft goods. (Note - compared to the impacts of hard goods for other trail and greenway analyses, this number is much larger. The survey question regarding expenditures on hard goods asked for purchases *in the last year*. The other trail studies used a slightly different methodology despite the same question being asked. We feel our method is more accurate). With 85% of survey respondents indicating they are Lackawanna County residents, we are assuming the same percentage of purchases related to the trail occurred in Lackawanna County.

Lodging is another spending category factored into the direct economic impact. However, according to the intercept survey, just 2.4% of trail users incorporated an overnight stay into their visit to the trail. More than half of those respondents – 1.4% - stayed with a friend or relative. Just 0.5% (3 respondents) stayed in a campground or state park, and another 0.5% (3 respondents) stayed overnight at a motel/hotel or bed & breakfast. With only one respondent reporting any expenditure on lodging, there is insufficient data to include this category of spending in the direct economic impact.

**In total, combining hard goods and soft goods, the direct economic impact of the Lackawanna River Heritage Trail in 2016 is estimated at \$64.6 million for the Commonwealth of Pennsylvania, including a direct impact of \$54.8 million for Lackawanna County.** By comparison, the direct economic impact of the LRHT in 2009 was \$28.3 million (\$31.8 million in 2016 dollars) for an increase of 103%.

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## Indirect Economic Impact

To calculate the indirect impact of the LRHT, we employed the IMPLAN (Impact analysis for PLANning) model. Developed by the U.S. Forest Service's Land Management Planning Unit and the University of Minnesota, IMPLAN utilizes the quantitative economic technique called the input-output model to track the way a dollar injected into one sector is spent and re-spent in other sectors of the economy. Through the use of IMPLAN, the economic impact of the LRHT can be traced over multiple rounds of spending in the economy.

The magnitude or degree in which the direct impact triggers indirect and induced impacts is referred to as the "multiplier." IMPLAN calculates different multipliers depending on the types of spending that comprises the direct impact, as well as the geographic region that's being studied. For the purposes of this analysis, the study area is the Commonwealth of Pennsylvania, including Lackawanna County.

The result of applying IMPLAN multipliers to the direct spending by LRHT users is **an indirect economic impact in 2016 of \$27.3 million for the Commonwealth of Pennsylvania, including an indirect economic impact of \$16.7 million for Lackawanna County.**

## Total Economic Impact

Combining direct and indirect impacts, **the total economic impact of the Lackawanna River Heritage Trail in 2016 for the Commonwealth of Pennsylvania, including Lackawanna County, is approximately \$91.9 million.**