Trail User Surveys and Economic Impact
A Comparison of Trail User Expenditures
2009
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Trail User Survey and Economic Impact

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Introduction

This report focuses on reported dollars spent from trail user surveys completed on seven rail-trails in Pennsylvania using the same methodology. In addition, we reviewed seven trail user surveys completed on comparable rail-trails in the northeast United States. Unlike public opinion polls, a trail user survey seeks specific information from the people actually on the trails. A number of trail user surveys with economic impact analysis have been done in Pennsylvania during the past eight years; most of these have attempted to quantify the amount of money a user spends during their time on the trail and identify the goods and services on which the user is spending their money.

Pennsylvania is a leading state in the nation in the development of rail-trails. Due to the extraordinary support of rail-trails by the Commonwealth, funding has been made available to assist communities around the state who value trails for recreation, health and transportation. As of this writing Pennsylvania has 137 open trails totaling 1,371 miles. More miles are opening every year.

The economic impact of rail-trails has been studied over the past 15 years by community planners and advocates alike. By acquiring and viewing this first-hand evidence of a trail’s economic impact, a community can more fully understand the users’ needs; thereby enhancing the users’ trail experience as well as the quality of life in the community. A trail user survey should be a standard tool of every trail manager and community planner.

The purpose of this report is to review a selection of trail user surveys which analyze the economic impact of rail-trails, to compare this data and the methodology used, and to create a comparative table report revealing the dollar amount spent per trail user on each trail.

Rail-trails offer economic opportunities not readily available to other trails simply because of the inherent characteristics of railroad corridors. The nature of the rail system—its proximity and connectivity to community business centers—is a natural driver of a rail-trail’s economic benefits and overall success. General and like results can be culled from nearly every rail-trail user survey and normally reveal:

1. Biking is the primary activity.
2. Health and recreation are the top reasons for using the trails.
3. The majority of users are 45 years and older.
4. Gender percentages vary about 10 percent or less, with the majority user being male.
Rails-to-Trails Conservancy (RTC) reviewed user surveys from 20 trails for this report. Fourteen of those surveys included specific questions about users’ expenditures on non-durable goods. The economic impact questions from 12 of the trails were posed with enough similarity for comparison.

Each survey selected included the following data:

- Sample size
- Local/non-local users
- Age
- Primary activity
- Primary reason for using trail
- Did the user purchase soft goods (food/beverage, non-durable)?
- What dollar amount was spent on soft goods?
- What percentage of respondents reported purchases?
- If possible, an estimate of the total number of user visits to the trail

“Non-local expenditures related to recreation use impact the local economy in the form of increased output, income, and jobs. These increases are quantified by performing economic impact analysis.”

—The Washington & Old Dominion Trail: An Assessment of User Demographics, Preferences, and Economies, Virginia Department of Conservation.
The Rail-Trails

Fourteen of the Trail User Surveys included specific data on user expenditures and were used to compile this report. The surveys came from the following trails:

**Pennsylvania**
- Pine Creek Rail Trail
- Perkiomen Rail Trail
- Schuylkill River Trail
- Heritage Rail Trail County Park
- Oil Heritage Rail Trail
- Lower Trail
- Great Allegheny Passage

**Outside Pennsylvania**
- Torry C. Brown Trail, Maryland (formerly NCR Trail)
- Virginia Creeper Trail, Virginia
- Washington and Old Dominion Railroad Regional Park (W&OD Trail), Virginia
- Genesee Valley Trail, New York
- North & South County Trailway, New York
- East Bay Bicycle Path, Rhode Island
- William C. O’Neill Bike Path, Rhode Island (formerly South County Bike Path)
The Importance of Conducting a Trail User Survey

“Why do a trail user survey? We know everyone loves our trail.”

Perhaps this is true. But can you prove it or is it just your opinion? By conducting a trail user survey, trail advocates, managers or users are provided with quantifiable information that can be used for a multitude of purposes.

Management

First and foremost, a trail user study is a management tool. It provides feedback from trail users on what they are doing on the trail, when they are doing it, and what they think about the maintenance, cleanliness and security on the trail. This information can point the trail manager in the direction of what amenities are desired and where to place them; where a new trailhead needs to be developed or an existing trailhead expanded. Of critical value is also how the trail user survey provides feedback from more than a few vocal, self-selecting users, but rather from hundreds of trail users, both local and non-local.

Economic Analysis

Gathering information on how much money trail users will spend and on what goods leads to an assessment of the economic impact a trail has on the communities through which it passes. The economic focus of the trail user surveys in this report is on the spending on non-durable (consumable goods) such as a food. Combined with an estimated number of annual trail user visits, the economic impact of the trail can run into the millions of dollars.

In many cases, the spending by trail users provides the impetus for revitalization and/or establishment of local businesses to provide services trail users need. Data from a trail user survey that includes the economic impact of trail use-related spending can be used as a tool for the community to attract investment from a new business coming to town or to support a loan request for the rehabilitation of an existing business.

Fundraising

Economic data and direct feedback from trail users can also provide powerful support for applications for funding. With increased competition for funding from grant programs and foundations, the applicant who can back up a request with quantifiable facts has a much better chance of securing the request.

For trail user studies and economic impact analyses to be most effective as fundraising and awareness-building tools, the information must be gathered at the local level. Referencing a study completed in another state or from several years earlier does not have the same impact as the most recent data collected on your trail. Trail managers and trail advocates are strongly encouraged to make the case for a local trail user survey. Think of it as an investment in the future of your trail.
Urban Trails

These rail-trails exist in a metropolitan environment, have many road crossings and may or may not have retail potential. Although an initial assumption may be that an urban trail is the most likely candidate to provide economic impact, this is not necessarily a given. As a vestige of the railroad corridor that they are built on, many urban trails can actually be physically isolated from the world they are passing through. Performing a survey of trail users on this type of trail can be paramount in order to determine specific needs and best development potential for the trail.

Suburban Trails

Suburban rail-trails tend to parallel roads and highways through residential housing, primarily single family dwellings, and may have many road crossings. Retail centers are well identified and congregated along well-traveled vehicular roads and intersections. Unless the trail is designed to lead directly into a retail center, it is easy for users to by-pass the retail centers, preferring to stay on the trail.

Rural Trails

Rural rail-trails typically feature expansive views, woods and/or farmland, and may pass through or start and end in small towns. The rural trail that passes through town centers (not all do) may perhaps enjoy the largest economic impact of all the trail types. The rural trail tends to have fewer road crossings than the other trail types, following the course of a rail corridor that frequently skimmed the edge of a creek or farmer’s hedgerow. Rural trails tend to be longer than suburban and urban trails.

Though it appears easy to pigeon-hole these three types of trails, most are more likely to be a combination of types. Large regional trail systems or long-distance trails are often being developed by connecting previously built and physically separate trails. What may have been three individual trails may become one continuous multi-type trail. Understanding the potential economic impact of various types of trails is important to the final design of a regional trail system.

To achieve economic vitality by itself, the trail must bring the user into easy and direct contact with retail establishments. For this reason, the rural trail that passes through or stops and ends in small town centers and becomes a focal point may appear to have greater economic impact over an urban trail. Retail next to the trail offers a sense of safety and belonging, fostering a sense of “this store is here for me.”

Does a particular type of user offer more potential for economic impact over other trail users? The demographics of trail users vary little across the country; however what may be more important is how the trail is being used, its primary purpose of use and how much time is spent on the trail.
The general demographics in each of the surveys showed little if any variation. We selected only the respondent’s age and gender for this report. Zip code is the most common way to identify a respondent’s origin for a survey and the general demographics of a region can easily be determined from U.S. Census data. This information can be most useful when working with a community trail that has a majority of local users.

Across the board, user demographics found in the 14 trail user surveys for each of the trails appear very much the same. The age of the majority of users is 45 and up and the gender mix is normally within 10 percent of 50–50, e.g. a spread of 45 percent female and 55 percent male is very common; the higher percentage is typically for male users.

Occasionally, the question arises of how much a self-selecting survey influences the age data results. The user surveys we have selected show some variation in the data collection methodology. The majority were self-selecting; however surveys distributed by personal intercepts and/or mail show the same distribution by age group, except for one. The William C. O’Neill Bike Path had just opened in 2002 when the user survey was conducted. The age distribution among the 141 respondents was remarkably evenly spread (approx 25 percent each) among four set age groups representing ages 15 and under, up to age 65. RTC has not encountered any other trail user survey with such an even distribution of ages.

Local vs. Non-Local Trail Users

The tourism industry generally views non-local visitors or users as being the major spender in a tourist environment. Expenditures made by non-locals are considered to be new money, implying that non-local expenditures quantify economic growth. In the Phase 2 Trail Town Economic Impact Study of the Great Allegheny Passage completed in 2009, the data collected revealed that “trail users traveling 50 miles or more to get to the trail spend approximately twice as much in trail communities as those traveling less than 50 miles.”

Defining the geographic limits of what is local in relation to a trail is certainly subjective and may be rationalized based on regional topography as well as the type of trail and the majority use. A 20-mile urban trail may see a large amount of commuter use and have the local area defined as only the adjacent counties. A 200-mile long-distance trail may function as a destination in itself; perhaps the local area would be better defined as a 100-mile radius. Defining local vs. non-local is an important distinction for the trail manager to make, and all user survey analyses need to reflect that distinction.

To make like comparisons, a standard local vs. non-local definition must be established. A number of trail user surveys have chosen to define the local area as being the county or counties adjacent to the trail itself. A number of surveys also ask how many miles the user traveled to the trail. Distance traveled may be a better factor to determine the local vs. non-local user. However for the purposes of this report the most comparable data available was using county boundaries to define “local.” RTC has therefore used geographic boundaries to define the local area of all the trail user surveys reviewed. In some
cases we were able to review the raw data collected for ZIP codes and can therefore show a local and non-local percentage that is different from what appears in the original survey analysis.

Along with users, the trail itself can be described as being a local community trail or a destination trail that sees a majority of non-local users. Health and fitness is the primary reason the majority of respondents give for using a local rail-trail. Recreation is the primary reason given for using a destination trail.

GIS maps provide an excellent visualization of these differences.

The Schuylkill River Trail lies within the Philadelphia metropolitan area and the majority of respondents live in the counties the trail passes through. With two months of preliminary data available (600 completed surveys), the respondents to the survey are 98 percent local (top map).

Considered a destination trail, the Pine Creek Rail Trail is located in a rural environment with the majority of respondents representing a broad geographic area. Using the three counties of Clinton, Lycoming and Tioga to define the local area, respondents to the Pine Creek Rail Trail user survey were 31 percent local and 69 percent non-local (bottom map).
## Trail User Comparison Chart

<table>
<thead>
<tr>
<th>Trail, state and date of survey report</th>
<th>Total respondents</th>
<th>Survey distribution method</th>
<th>Local/non-local</th>
<th>Majority reason for using the Trail</th>
<th>Age of majority of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pine Creek Rail Trail, Pa., 2006</td>
<td>1049</td>
<td>self-selecting, return mail</td>
<td>31% local 69% non-local</td>
<td>recreation</td>
<td>56–65</td>
</tr>
<tr>
<td>Perkiomen Trail, Pa., 2008</td>
<td>694</td>
<td>self-selecting, return mail</td>
<td>96% local 4% non-local</td>
<td>health</td>
<td>46–55</td>
</tr>
<tr>
<td>Schuylkill River Trail, Pa., 2009</td>
<td>600</td>
<td>self-selecting, return mail</td>
<td>98% local 2% non-local</td>
<td>health</td>
<td>46–55</td>
</tr>
<tr>
<td>Heritage Rail Trail County Park, Pa., 2007</td>
<td>220</td>
<td>self-selecting, return mail &amp; drop off</td>
<td>73% local 27% non-local</td>
<td>health</td>
<td>56–65</td>
</tr>
<tr>
<td>Oil Heritage Region Trail System, Pa., 2006</td>
<td>261</td>
<td>self-selecting</td>
<td>73% local 27% non-local</td>
<td>health</td>
<td>46–55</td>
</tr>
<tr>
<td>Lower Trail, Pa., 2007</td>
<td>485</td>
<td>self-selecting</td>
<td>94% local 6% non-local</td>
<td>health</td>
<td>56–65</td>
</tr>
<tr>
<td>Great Allegheny Passage, Pa./Md., 2009</td>
<td>1272</td>
<td>intercept</td>
<td>69% local 31% non-local</td>
<td>health</td>
<td>45–54</td>
</tr>
<tr>
<td>Torrey C. Brown Trail, Md., (formerly the NCR Trail), 2005</td>
<td>767</td>
<td>self-selecting</td>
<td>96% local 4% non-local</td>
<td>health</td>
<td>46–55</td>
</tr>
<tr>
<td>Virginia Creeper Trail, Va., 2004</td>
<td>1036</td>
<td>intercept</td>
<td>47% local 53% non-local</td>
<td>health</td>
<td>46–55</td>
</tr>
<tr>
<td>Washington &amp; Old Dominion Railroad Regional Park, Va., 2004</td>
<td>1426</td>
<td>intercept</td>
<td>95% local 5% non-local</td>
<td></td>
<td>46–55</td>
</tr>
<tr>
<td>Genesee Valley Trail, N.Y., 2009</td>
<td>233</td>
<td>self-selecting, return mail</td>
<td>92% local 8% non-local</td>
<td>health</td>
<td>46–55</td>
</tr>
<tr>
<td>North &amp; South County Trail, N.Y., 2009</td>
<td>257</td>
<td>self-selecting, return mail</td>
<td>95% local 5% non-local</td>
<td>health</td>
<td>46–55</td>
</tr>
<tr>
<td>East Bay Bicycle Path, R.I., 2002</td>
<td>244</td>
<td>intercept &amp; mail</td>
<td>NA</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>William C. O’Neil Bike Path, R.I. (formerly South County Trail), 2002</td>
<td>141</td>
<td>intercept &amp; mail</td>
<td>NA</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>Trail</td>
<td>Respondents</td>
<td>Distribution Method</td>
<td>Local/Non-Local</td>
<td>Majority Reason</td>
<td>Age of Majority</td>
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<td>-------------------------------------------</td>
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</tbody>
</table>
The methodology of trail user surveys varies widely across the country, often negating the possibility for a true comparison of data. In 2004 the Pennsylvania Department of Conservation and Natural Resources looked for a way to gather the same data from trails throughout the state. (Pennsylvania currently has 137 open rail-trails.) The Trail User Survey Workbook* was created in 2005 and included a tested methodology as well as sample survey instruments that trail managers could readily use.

Pennsylvania and Maryland

Between 2005 and 2009, five trail user surveys were executed on trails in Pennsylvania and one in Maryland using the same methodology delineated in the Workbook. (Heritage Rail Trail County Park, Torrey C. Brown Trail, Pine Creek Rail Trail, Perkiomen Rail Trail and Schuylkill River Trail)

The Pine Creek, Perkiomen and Schuylkill River Trails have each been surveyed by Rails-to-Trails Conservancy. Beginning with a template questionnaire, each survey instrument was refined by the trail managers in order to gather data unique to their particular trail; however the majority of questions contained on each survey were identical. All samples were self-selecting. A one-page, one-sided survey form was designed as a postage-paid self-mailer with approximately 25 questions. The survey forms were placed in boxes located at all major trailheads over a period of several months, normally lasting spring through fall. Surveys were also posted in counter-top displays at many businesses along the trail. The data was collected and tallied using Microsoft Excel©. Percentage results for questions with multiple responses or no responses were based on the total number of responses to a particular question not on the total number of useable surveys.

Most pertinent to this report was the question of soft good expenditures. Exemplified soft goods were listed on all five of these surveys as: beverages, candy/snack foods, sandwiches, ice cream, restaurant meals, other and none of these. It is significant to note that questions about overnight lodging and the amount spent were asked separate from the questions about soft good expenditure.

The original demographic analysis of these five surveys did not specifically state local vs. non-local residents but did collect the zip code of each respondent. For the purpose of this report RTC was able to go back to the raw data and define the local and non-

* Trail User Survey Workbook: How to Conduct a Survey and Win Support for Your Trail; Rails-to-Trails Conservancy, 2005.
local users. In order to yield data comparable to the majority of trail user surveys in this report, local was identified as the counties immediately adjacent to the trail.

The final economic analysis for soft good expenditures was done by comparing percentages of respondents who said they purchased soft goods, and creating an average dollar amount from the respondents. This dollar amount was then applied to a like percentage of trail users from a user count (% Usage x Users Avg. $ x # Users). An estimate of annual trail user visits on the five trails was determined through observation or electronic counters and applying average distribution curves from existing relative models to the count sample data.

Two more Pennsylvania trails performed trail user surveys using the Workbook as a starting point. In 2006 The Allegheny Valley Trails Association executed a trail utilization study for six connected trails in the Oil Heritage Region. In 2007 Rails to Trails of Central Pennsylvania performed a trail user survey of the Lower Trail. Though the general methodology of the Workbook was followed in both of these studies, the questions and/or multiple choice responses were changed enough that a question-to-question comparison with the previous five surveys would not be appropriate. However, it is possible to look at the final analysis of the two reports and find a number of appropriate comparisons to make with the other Pennsylvania trails regarding expenditures. It is significant to note that the Oil Heritage Region report identified the trail location for each respondent; the final analysis determined the economic impact for the entire six-trail region as a whole. Passive infrared counters were used to estimate an annual visit number in the Oil Heritage Region. The Oil Heritage Region is currently working toward a seamless connection of these six trails with other rail-trails running north from Pittsburgh.

The Allegheny Trail Alliance is a coalition of seven trail organizations that collectively make up the Great Allegheny Passage (the Passage), a rail-trail running 150 miles from Pittsburgh, Pennsylvania, and southeast to Cumberland, Maryland. In Maryland, the Passage connects to the C&O Canal Towpath, forming a continuous non-motorized route between Pittsburgh and Washington, D.C. The Alliance performed their first trail user survey in 2002. An economic impact study began in 2007 prior to the trail being completed. In 2008 a third study on “trail town” economic impact began, analyzing the data gathered from both trailside businesses and trail users. RTC was able to review the data collected in the 2009 Phase II trail user survey report just as it was released. Unlike the previous user survey, intercept surveys were executed by volunteers at the trailheads between May and October 2008. The Phase II executive summary included enough information to make categorical comparison with the other user surveys in this report.

Congressman John Murtha (D-Pa.), speaking of the Great Allegheny Passage, said, “It’s a major asset for our region, not only because of the tourist dollars it’s attracting, but also because it’s a key piece of our economic rebuilding efforts [in the region].”
New York

The New York State Office of Parks, Recreation and Historic Preservation is currently preparing a final report which will include the results for trail user surveys on eight trails that were executed over the same period of time during summer 2008. A paper with preliminary results was released in 2009 and information on the methodology was shared for this report**. The samples gathered for the Genesee Valley Trail and the North and South County Trail in New York were self-selecting from boxes posted at the trailheads. Postage-paid envelopes were attached to the survey forms.

Virginia

From November 2002 to October 2003, a stratified, random sampling was used to collect user counts on the Virginia Creeper Trail with three types of strata identified for the counts (season, day and exit). A screening, or pre-survey, was also used to collect demographics and determine if the user was local or non-local. One survey was used for local users, and two other versions of the survey were designed for non-local users. The local user was defined as living or working in one of two counties adjacent to the trail. The onsite sampling was done over a 12-month period. The impact analysis was executed using the IMPLAN (IMpact Analysis for PLANning) economic modeling software developed by the USDA Forest Service.

The Washington and Old Dominion Railroad Regional Park user survey is widely regarded as a strong analysis of trail user preferences and economic impact. In 2004 the USDA Forest Service, in partnership with the University of Georgia and the National Park Service, completed an analytical study of users on this 45-mile rail-trail. The intercept surveys took place over one year (2003–2004) on the trail and were based on quotas from geographic sections of the trail and the date/season along with time of day. Separate self-populated surveys were created, one for local users and one for non-local. The local area was defined as living within the counties adjacent to the trail. In order to analyze the economic impact, a user estimate was also completed using visual counts collected over a period of a week.

and extrapolated with data from the user survey about the percentage of time spent annually on the trail (seasonal shares). The Money Generation Model, Version 2 (MGM2) using Microsoft Excel© developed by the National Park Service for estimating the amount of visitor dollars spent, was used to analyze the economic impact of the trail in the region.

**Rhode Island**

The 2002 Rhode Island Bicycle Transportation Survey completed in 2004 is noteworthy for its comprehensive analysis of users of four multi-modal rail-trails in the state. This study used a combination of a five-question intercept survey with a take home-return mail questionnaire. The sampling was done over an eight-week period with days and time randomly selected. The methodology resulted in two sets of data: On-Path that consisted primarily of demographic data collected via the short five question intercept, and; Off-Path that resulted in a detailed quantity of data pertinent to use. Samples were collected and analyzed from each trail independently. The Off-Path survey focused on use patterns as well as trail safety and maintenance. A series of questions pertinent to expenditures was included, however the specific questions posed and the available responses make it difficult to fairly compare with the data collected in the other surveys cited in this report. We have chosen to include data from two of the trails from the study due to its comprehensive look at the state trails.

“By understanding both the socio-economic and lifestyle preferences of the trail customer base, the local Trail Town organization can begin to make decisions about how best to attract these customers into the community’s central business district.”

— Trail Towns, Capturing Trail based Tourism, 2005

2002 Bicycle Transportation User Survey; Developing Intermodal Connections for The 21st Century, University of Rhode Island and RI DOT for University of Rhode Island Transportation Center, 2004.


