



**MIAMI VALLEY**

Regional Planning Commission

Shaping Our Region's Future Together

## MIAMI VALLEY TRAIL USER SURVEY REPORT

### FINDINGS FROM THE 2017 SURVEY

Using new technology, additional new survey locations and a few new questions, the volunteers for the 2017 Trail User Survey gathered 1,170 surveys from seven counties. This report summarizes the survey findings and some lessons learned.

**DECEMBER 2017**

# TABLE OF CONTENTS

Report Summary	2
Background	3
Survey Process	5
Count Summary	7
Survey Responses, Question-by-Question	9
Economic Impact Analysis	40
Appendices	42

## MANY THANKS TO OUR PARTNERS

The following agencies and organizations provided volunteers and person-hours to the 2017 Trail User Survey:

- Five Rivers MetroParks
- Greene County Parks & Trails
- Miami County Park District
- Centerville-Washington Park District
- Darke County Park District
- Clark County Park District
- Miami Conservancy District
- Simon Kenton Pathfinders
- City of Piqua

## REPORT SUMMARY

- The 2017 Miami Valley Trail User Survey and Count project was conducted on seven dates in September 2017. Eight different trail-managing agencies participated.
- In total **1,170 surveys** were collected from the **8,868 people counted** on the trails.
- An online survey version was created to enable trail users to respond to the survey using their cell phones. Ultimately, however, a large majority of surveys (73 percent) were completed on paper forms.
- The responses to questions that were included in prior surveys (2009 and 2013) were very similar to those prior findings.
- New questions were added this year to gather additional demographic data about trail users, and also about how they use the trails.
- Trail users remain overwhelmingly satisfied with the trail experience in the Miami Valley. **Over 90 percent of respondents replied “Excellent” or “Good”** to questions asking their perceptions of trail maintenance, safety and security, and cleanliness.
- The typical trail user in 2017 (as in past years) was an older (two-thirds above age 45) male (60 percent male).
- Income responses indicate that most trail users have median incomes at or above their county medians.
- A higher proportion of trail users are white than the regional or county general population averages.
- Total direct economic impact from the trails, calculated using the Rails-to-Trails methodology, is estimated to be between **\$11.4 million and \$15.4 million**. An improved calculation of total trail network visits would help reduce the range and improve the reliability of this figure.

## BACKGROUND

The 2008 Comprehensive Local-Regional Bikeways Plan (CLRBP) and the 2015 Bike Plan Update each include a recommendation for regular, annual counts of bicyclists and trail users. In the years since the CLRBP was adopted by the Miami Valley Regional Planning Commission Board of Directors, there have been three distinct efforts across the region to fulfill this goal.

First, the several trail managing agencies have built up an impressive network of trail-based automated counters. Today counters exist in all four MVRPC transportation planning counties, totaling an impressive 32 count locations. With several consecutive years of data collected, MVRPC has undertaken the role of compiling and analyzing this data for the Region. The results of these analyses can be found on the MVRPC web site.<sup>1</sup>

Second, MVRPC has initiated a bicycle counting program using tube counters. The counting equipment is owned by MVRPC and is available for loan to member jurisdictions to perform short-term counts of bicycle use on streets. The system is calibrated to distinguish between automobile and bicycle traffic and between bicycle and pedestrian traffic (for instance on the trails). A summary of findings from these short term counts is available from the Bicycle Counting Program page on the MVRPC web site as well. Information is also available on that page for jurisdictions interested in conducting short term bicycle counts using the MVRPC tube counters.

Third, the region's trail managing agencies have coordinated on collecting trail user surveys every four years since 2009. Summary reports of the 2009 and 2013 surveys are available from the MVRPC web site.<sup>2</sup> This document summarizes the 2017 survey.

A primary goal of the 2017 survey was to collect survey data that is comparable to the prior two surveys to enable the detection of any trends in trail user's perceptions of the trails, user demographics and economic impact. To that end the survey form was nearly identical to the prior forms. All questions, save one, used in prior years were included in the 2017 survey. As the Question-by-Question review of responses will detail, the responses were quite similar in 2017 to prior surveys.

That said, there were some notable differences in the delivery of the survey in 2017 compared to past years:

1. **More partners and more locations.** Surveys were collected in seven different counties in 2017, up from three in the past two efforts. The new counties added were Champaign, Clark, Darke and Warren Counties; continuing counties were Greene, Miami and Montgomery. Broadening the scope of the project was only possible with the addition and participation of new partners: Simon Kenton Pathfinders, Clark County Park District and Darke County Park District.
2. **September instead of August.** At the recommendation of transportation professionals, the delivery of the survey was shifted into September, under the assumption that more regular patterns of use will be in effect with the summer over. The survey did not find a detectable

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<sup>1</sup> Bicycle Counting Program page is found here: <https://www.mvrpc.org/transportation/traffic-count-program/bicycle-counting-program>

<sup>2</sup> Trail User Survey page is found here: <https://www.mvrpc.org/transportation/bikeways-pedestrians/trail-user-surveys>

difference from this change. However, as it happened, the remnants of two 2017 hurricanes passed through southwest Ohio during September, having a direct effect on trail usage.

3. **Variable days instead of fixed.** In past years the agencies conducting the survey selected a single set of days to deliver the survey: a single Sunday and Wednesday (with rain dates a week later). With the additional partners and so many events scheduled for September, a different approach was taken in 2017. Each participating agency was asked to select a two dates in September for delivery of the survey in their location(s).
4. **Saturday instead of Sunday.** The trail managing agencies agreed to shift the weekend day to Saturdays instead of Sundays. Reasons for the shift included greater ease in recruiting volunteers, and greater likelihood of surveying out-of-region trail users (assuming day trips to be more likely on Saturdays). Regional automated counter data indicates that Sundays represent about 19.1 percent of trail usage and Saturdays represent about 18.9 percent.<sup>3</sup> Therefore, selecting either day should not represent a significant difference in the study.
5. **Added an Online Survey.** The 2017 survey was formatted into an online survey using tools provided by Google Forms.<sup>4</sup> The intention for moving to an online form was to have trail users complete the survey on their personal cellular phone. Trail User Survey volunteers would assist survey takers in navigating to the survey page (embedded into the MVRPC web site). Pre-printed cards with a “QR code” were provided to direct phones to the survey. Paper surveys were available at all survey locations for those without smartphones, or did not wish to use them. It was hoped that as many as two-thirds of survey takers would do so on their phones, thereby reducing data entry time and data entry errors. As it turned out, very few trail users were willing to use their personal phones for taking the survey. Also, few people had QR code reading applications on their phones. Shockingly, QR codes may already be a dying technology. As a result, only 26.1 percent of the surveys (305 of 1,170) were entered during (or before) the survey period, based on the complete data table provided by Google. The remaining surveys were collected on paper and entered into the Google Form by agency staff and volunteers.
6. **Four new questions were added.** To find out more about the users of the Miami Valley Trails four additional questions were added in 2017. Two were questions about personal demographics: race and household income. The other two were about the specific trip to the trails that day: “How did you get to the trails?” and “How many are in your party?” Details about the response options and the responses received are provided in the Question-by-Question section of this report.
7. **Several questions were modified in some way.** In some cases additional optional responses were added; in other cases respondents were allowed to select two responses where only one had been allowed in the past. The modifications were:
  - a. “How did you learn of the Miami Valley Trails?” On the online survey this question was restricted to respondents who indicated they were from outside the Miami Valley. Also “MiamiValleyTrails.org” was added as a response choice.
  - b. “Would you consider your use of the trail to be for...” To the existing choices of Recreation, Health and Exercise, Commuting, and Fitness Training, an additional choice

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<sup>3</sup> Miami Valley Bikeway Counting: Program Summary, December 2017.

[https://www.mvrpc.org/sites/default/files/bikeway\\_counting\\_program\\_summary.pdf](https://www.mvrpc.org/sites/default/files/bikeway_counting_program_summary.pdf)

<sup>4</sup> Please see <https://www.google.com/forms/about/>

- of “Tourism” was added. Also, respondents could choose up to two responses in 2017. Only one response was allowed in prior years.
- c. User satisfaction section rating trail Maintenance, Safety and Security, and Cleanliness had added comment sections in the online survey. There were no prompts for specific comments about these topics in the paper survey.
  - d. “On your most recent trip to the trail did you purchase any of the following:” An additional option, “Admission to museum/attraction” was added.
  - e. “What is your gender?” Two additional options were added to this question: “Other” and “Decline to Answer”

In all, as noted above, 1,170 surveys were collected during September 2017. This quantity falls between 2009’s 1,754 and 2013’s 569. Due to the disparity in surveys collected from year to year, and the increased number of participating counties, the data presented in this report will aggregate the data on a regional basis, and comparisons between years will be based on percentages rather than counts. Despite these differences to the survey, described above, the findings of the survey are remarkably similar to the two past surveys’ results. This fact provides a good reassurance that these survey efforts are reliably describing trail users and the characteristics of their use and impact.

## SURVEY PROCESS

The count and survey forms and processes used in the three Miami Valley Trail User Surveys closely follow the methodology published by the Rails to Trails Conservancy in 2005.<sup>5</sup> The survey forms were updated as described above, and the participating trail managing agencies recruited survey volunteers and provided instructions to the volunteers for the conduct of the count and survey. The instructions were also included in the Volunteer manual and on the tally form. These documents are included in the Appendices to this report.

Each partner agency selected a Saturday and Wednesday for delivery of the survey based on volunteer capacity, and avoidance of major events. The selected dates are detailed in the table below; a map of survey and count locations can be found on page 7.

Date	Agencies	Trails	Location Count
Saturday, September 2, 2017	Darke County Park District	Ohio-to-Indiana Trail	2
Wednesday, September 6, 2017	Darke County Park District	Ohio-to-Indiana Trail	2
	Miami County Park District	Great Miami River Trail	1
Saturday, September 9, 2017	Five Rivers MetroParks	Great Miami River Trail	3
		Mad River Trail	1
	Miami Conservancy District	Great Miami River Trail	1

<sup>5</sup> Please see *Trail User Survey Workbook: How to Conduct a Survey and Win Support for Your Trail Sample Surveys and Methods*, 2005. Available from Rails-To-Trails Conservancy, <https://www.railstotrails.org/resource-library/resources/trail-user-survey-workbook-how-to-conduct-a-survey-and-win-support-for-your-trail/?q=survey&a=Rails-to-Trails%20Conservancy&t=Manual&s=All&q=All>

	Miami County Park District	Great Miami River Trail	1
Wednesday, September 13, 2017	Five Rivers MetroParks	Great Miami River Trail Mad River Trail	3 1
	Miami Conservancy District	Great Miami River Trail	1
Saturday, September 16, 2017	Greene County Parks & Trails	Little Miami Scenic Trail Creekside Trail Ohio-to-Erie Trail	2 1 1
	Simon Kenton Pathfinders	Simon Kenton Trail	1
	National Trail Parks and Recreation District	Little Miami Scenic Trail	1
Wednesday, September 20, 2017	Greene County Parks & Trails	Little Miami Scenic Trail Creekside Trail Ohio-to-Erie Trail	2 1 1
	Simon Kenton Pathfinders	Simon Kenton Trail	1
	National Trail Parks and Recreation District	Little Miami Scenic Trail	1
Saturday, September 23, 2017	Centerville-Washington Park	Iron Horse Trail	1

The benefit of using different dates in different locations was that some survey days were free of the rain that came from the remnants of Hurricanes Harvey and Irma. It is possible that by spreading the surveys across the month, some trail users may have been counted more than once, but it is unlikely that an individual would complete a survey form more than once.

The agencies also agreed on a time window of 08:00 am to 08:00 pm for the count and survey project. This twelve hour window is shorter than the time used in prior surveys, but this was done, again, due to concerns about volunteer capacity. It is worth noting as well that in September the daylight hours are shorter than August. In advance of the project MVRPC issued a press release and a promotional video regarding the survey.

Volunteers were stationed at survey and count locations, typically working in pairs for shifts of 2 to 3 hours. All trail users passing the survey point (typically a table or tent) were counted and categorized by how they were using the trail (bike, on foot, ADA device, rollerblades, etc.). Trail users were invited to complete a trail user survey either on their phones, or on paper. Users were expected to complete the survey on their own; volunteers were not expected to ask the questions and fill in the responses for the survey respondents.<sup>6</sup> Respondents using paper surveys could complete the questionnaire and leave it with the volunteers or mail it into MVRPC. In 2017, fewer than 10 surveys (out of 1,170) were mailed. Blank copies of paper survey and tally forms, and screen captures of the online form are provided in the Appendices of this report.

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<sup>6</sup> Such assistance was provided, as needed, however.

Completed survey forms and tally sheets were collected by MVRPC. With the help of trail managing agency volunteers, the paper surveys were entered into the online form through the month of October. When all 1,170 surveys were entered the form was “turned off” so that no additional responses would be accepted. The survey link was also removed from the MVRPC web site. Tally forms were compiled into a single spreadsheet for review and analysis. In total, 8,868 trail users were counted during the project. The complete spreadsheets of trail data are available from MVRPC for review.

## 2017 Survey and Count Locations



The 1,170 returned surveys from a count of 8,868 trail users represents a survey rate of 13.2 percent in aggregate. For a more in-depth analysis of trail user counts, please refer to MVRPC’s December 2017 report, “Miami Valley Bikeway Counting: Program Summary,” which aggregates automated counter data from across the region.<sup>7</sup> The report provides calculations of Average Daily Traffic and estimates of annual traffic at counter locations. The complete description of the calculation methodology is also included.

Analysis of the survey responses was conducted by MVRPC staff using both summary data provided by

Google Forms as well as tailored crosstab analyses of the data from the complete data table. This report’s Question-by-Question section provides the following information about each question:

- Question number
- Full text of the question and response options
- Number (out of 1,170) of surveys with responses to the question
- Indication whether this is a new question or continued from prior surveys
- Summary data of responses
- Notes or discussion of survey responses

<sup>7</sup> Miami Valley Bikeway Counting: Program Summary, December 2017. [https://www.mvrpc.org/sites/default/files/bikeway\\_counting\\_program\\_summary.pdf](https://www.mvrpc.org/sites/default/files/bikeway_counting_program_summary.pdf)



## COUNT SUMMARY

The following table provides a summary of the count data collected in conjunction with the survey project. Sample tally forms and instructions for the count process are included in the Appendices.

Count Location	Bike	Walk/Run	Dog	ADA	Skate/Blade	Totals	Percentage
Champaign	93	71	6		4	<b>174</b>	2.0%
Clark	314	45	9		18	<b>386</b>	4.4%
Darke	41	63	9			<b>113</b>	1.3%
Greene	1980	2491	155	17	51	<b>4694</b>	52.9%
Miami	307	96	10		5	<b>418</b>	4.7%
Montgomery	1351	1341	130	3	6	<b>2831</b>	31.9%
Warren	158	84	7		3	<b>252</b>	2.8%
<b>Grand Total</b>	<b>4244</b>	<b>4191</b>	<b>326</b>	<b>20</b>	<b>87</b>	<b>8868</b>	
<b>Percentage</b>	47.9%	47.3%	3.7%	0.2%	1.0%		

- There is a pretty even split between people on foot and people on wheels, with a slight edge to pedestrians, overall.
- Count totals tend to be higher in the more densely populated counties, but it is rather more likely that the totals correlate with the number of survey locations within the county.
- Wednesday counts were just under a quarter of all user counts for the project (24.0 percent) with walkers and runners representing over half of all uses on the weekday. Bicycle use was much more prevalent on the weekend counts.
- Weather was an issue during September. According to notes from the count tally sheets, about 70 percent of the hours in which counting and surveys were being conducted were reported as “sunny.” The other 30 percent were described as “foggy”, “overcast/showers,” or “rain.” As noted above, the remnants of Hurricanes Harvey and Irma passed through the Miami Valley during the month.

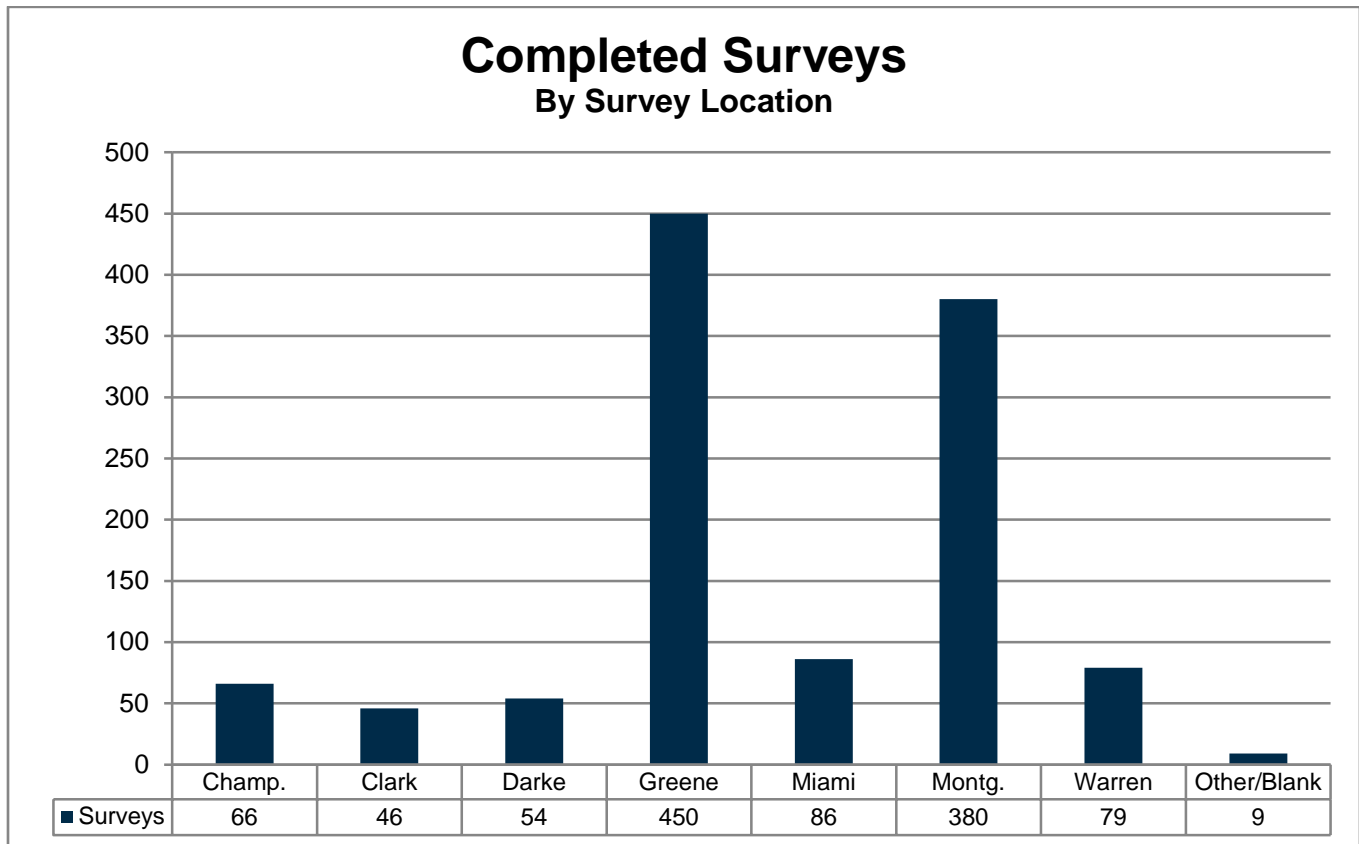
<b>Question # 1</b>	<b>1,166 responses</b>	<b>99.7% response rate</b>	<b>New for 2017? YES</b>
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Q. Where are you taking the survey today?  
 Response options: Champaign County; Clark County; Darke County; Greene County; Miami County; Montgomery County; Warren County; Other.

This question does not appear on the paper survey. In its place was a pre-printed code in the upper right corner of the survey form corresponding to the county of the trail-managing agency. Those codes are listed in the table to the right. For purposes of entering the paper surveys into the online form the pre-printed code was used for this response as it indicated where they received the form.

County	Code
Champaign	CH
Clark	CL
Darke	D
Greene	G
Miami	MI
Montgomery	MO
Warren	W

The chart below depicts the responses to this question for the 1,170 surveys. Four surveys skipped this question and are included in the "Other/Blank" category.



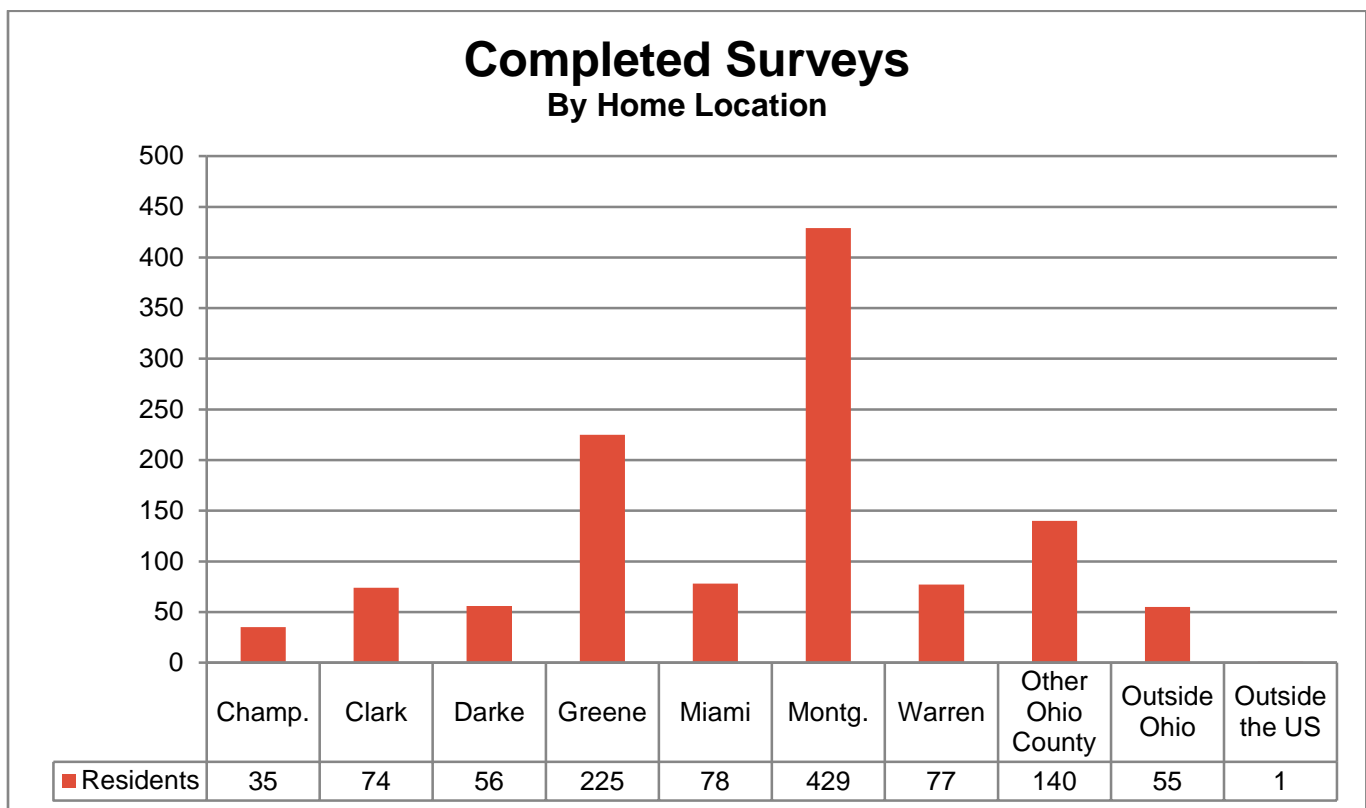
The Region's two most densely populated counties, Montgomery and Greene, have the most returned surveys. There were also more survey locations in each of those counties (five in Montgomery, four in Greene) than in the other counties (six in total). The Other/Blank category were certainly all completed online and indicated that the survey was completed outside of the Miami Valley (two were out of state).

<b>Question # 2</b>	<b>1,170 responses</b>	<b>100% response rate</b>	<b>New for 2017? YES</b>
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Q. Please tell us where you are from (home):

Response options: Champaign County, OH; Clark County, OH; Darke County, OH; Greene County, OH; Miami County, OH; Montgomery County, OH; Warren County, OH; Other Ohio County; Outside Ohio; Outside the U.S.

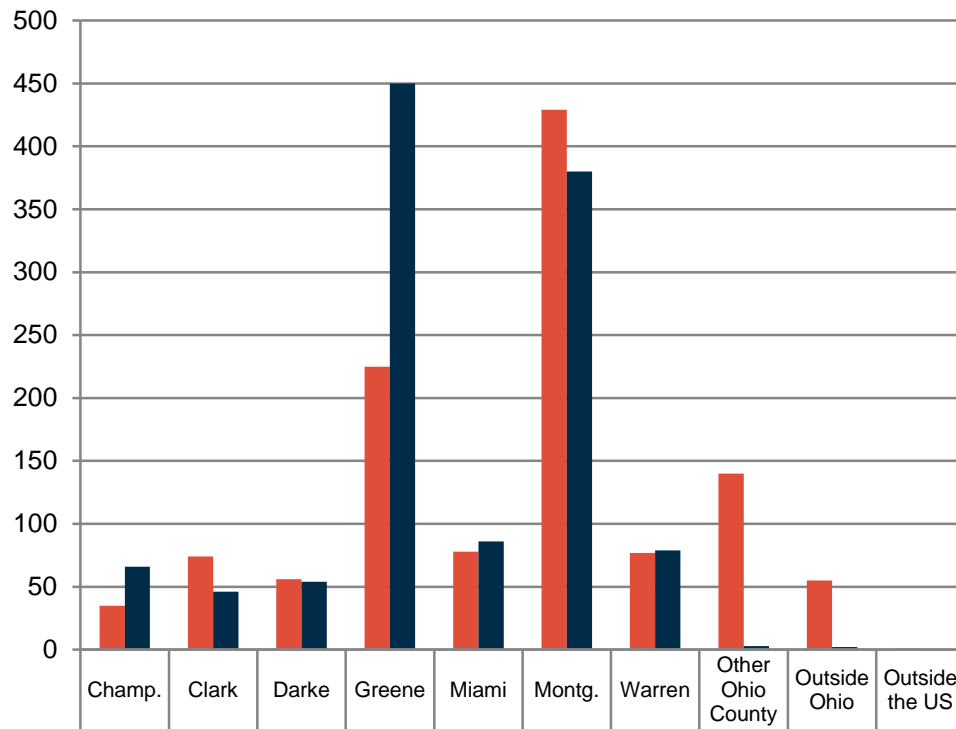
This question does not appear on the paper survey form. Instead, the survey form begins with a question asking for the home five-digit zip code. For purposes of entering the paper forms into the online data base, the zip code was used to provide the best answer for this question. Typically, the zip code was searched using Google, and the appropriate response was keyed into the database. The chart below details the responses to this question.



As in Question 1, the greater numbers of responses are coming from the two most densely populated counties within the Miami Valley Trails network. The 196 responses from people residing outside the seven survey counties represent 16.8 percent of the responses. For comparison, 16.4 percent of responses in 2013 were from “outside the region.” However, at that time the in/out assessment was based upon just four counties (Clark, Greene, Miami and Montgomery). All responses from outside those four counties were counted as out of region in the past.

It is also helpful to view this data side-by-side as the chart on the next page does. There you can see which counties are relative attractors, drawing more trail users from outside the county than others.

## Reported Locations



Where they live	35	74	56	225	78	429	77	140	55	1
Where they took the survey	66	46	54	450	86	380	79	3	2	

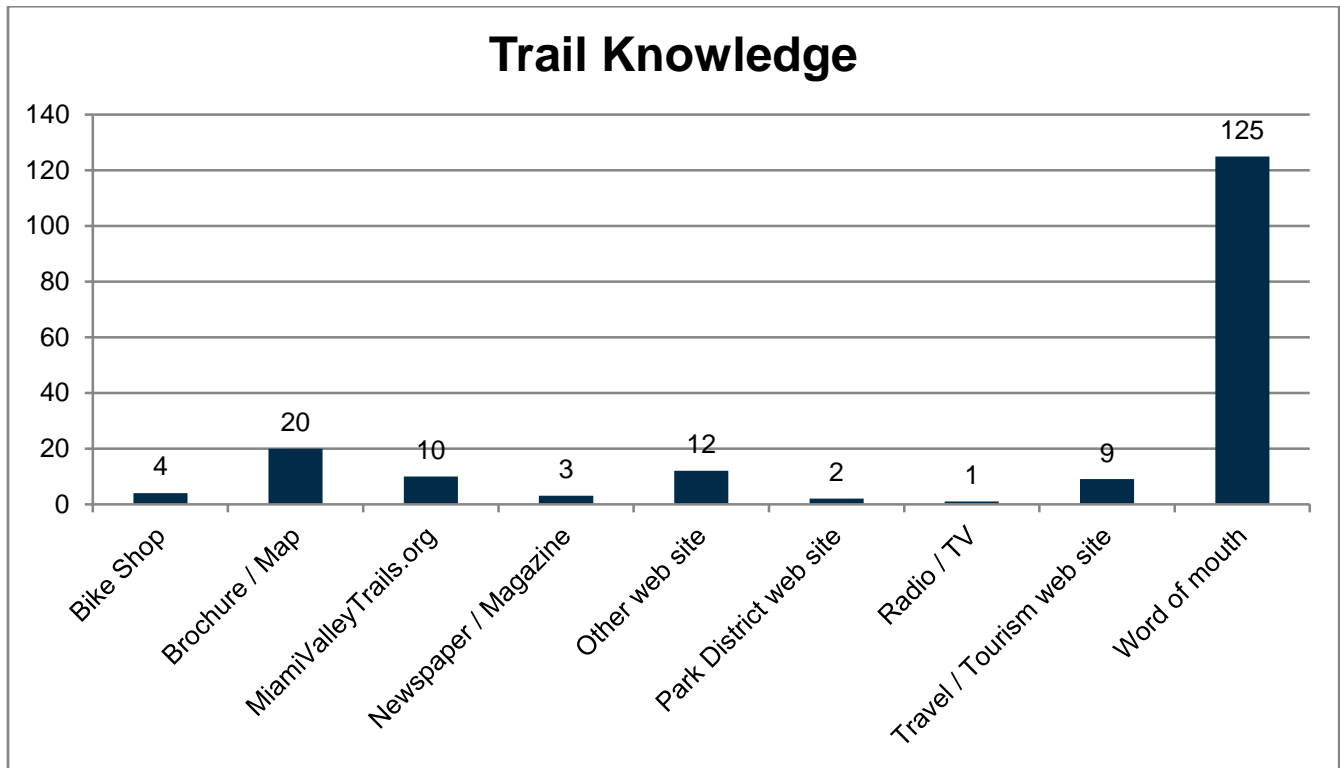
This data indicates that Greene County is a popular destination for trail users who live outside of Greene County. Indeed, fewer than half of the surveys collected by Greene County Parks & Trails (201 out of 450) were completed by Greene County residents.

A detailed breakdown of questions 1 and 2 can be found in the Appendices to the report.

<b>Question # 3</b>	<b>186 responses</b>	<b>15.9% response rate</b>	<b>New for 2017? No</b>
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Q. How did you learn of the Miami Valley Trails?  
 Response options: MiamiValleyTrails.org web site; Park District web site; Travel / Tourism web site; Other web site; Radio / TV story; Newspaper / Magazine article; Bike Shop; Brochure / Map; Word of mouth.

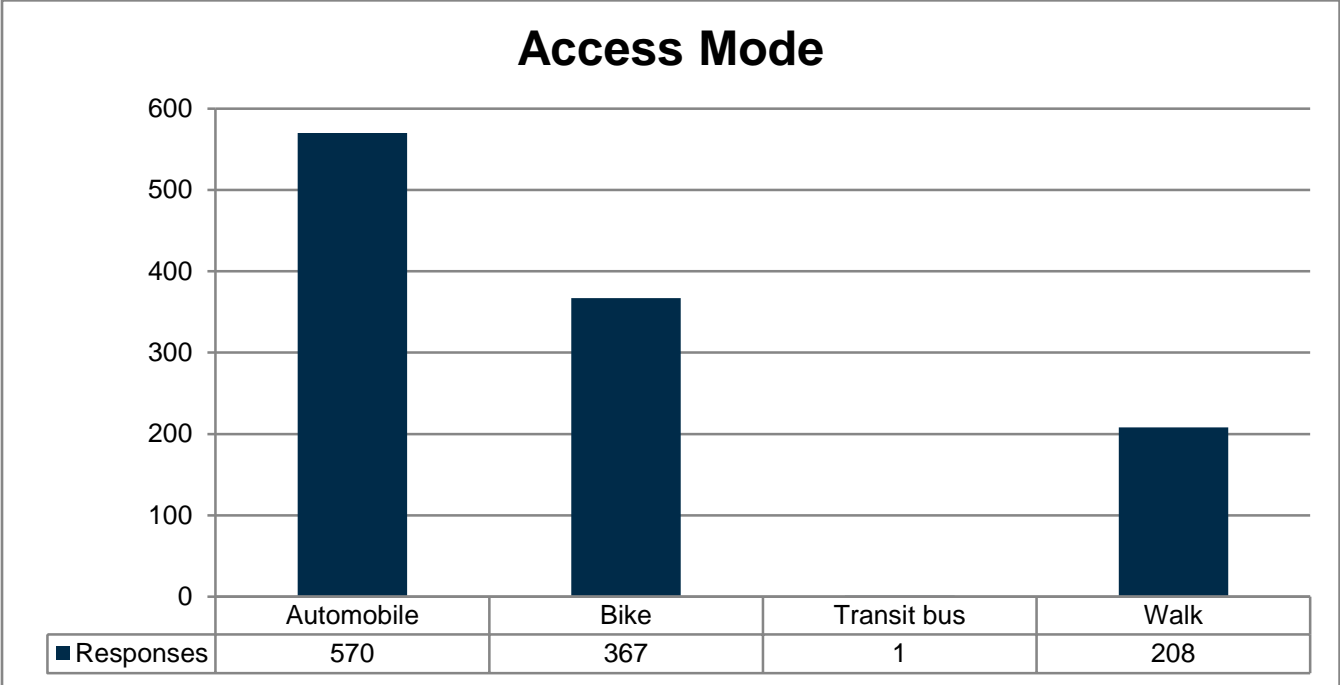
Using the tools provided by Google Forms, this question was restricted only to those people who indicated in Question 2 that they were from “Other Ohio County,” “Outside Ohio,” or “Outside the U.S.” Although the question is not new, this use of the question was new for 2017. Of the 196 such responses, the 186 respondents to Question 3 is a 94.9 percent rate. The question did appear on the paper form, but was not entered into the database if the response to Question 2 did not warrant this question. The chart below indicates the responses provided.



As in past years, the overwhelming response is simply word of mouth. The intent of the question is to assess marketing strategies for the Miami Valley Trails. Further refinements to the question will be needed to meet that purpose.

<b>Question # 4</b>	<b>1,146 responses</b>	<b>97.9% response rate</b>	<b>New for 2017? YES</b>
Q. How did you get to the trail today? Response options: Walk; Bike; Automobile; Transit Bus.			

This new question was added to begin to gauge how many trail users are able to use active modes (walking, biking and transit) to access the trails. In the future, trends in this figure may provide an indication of how well connected the trails are to Miami Valley neighborhoods and communities. The chart below indicates the responses for this question.



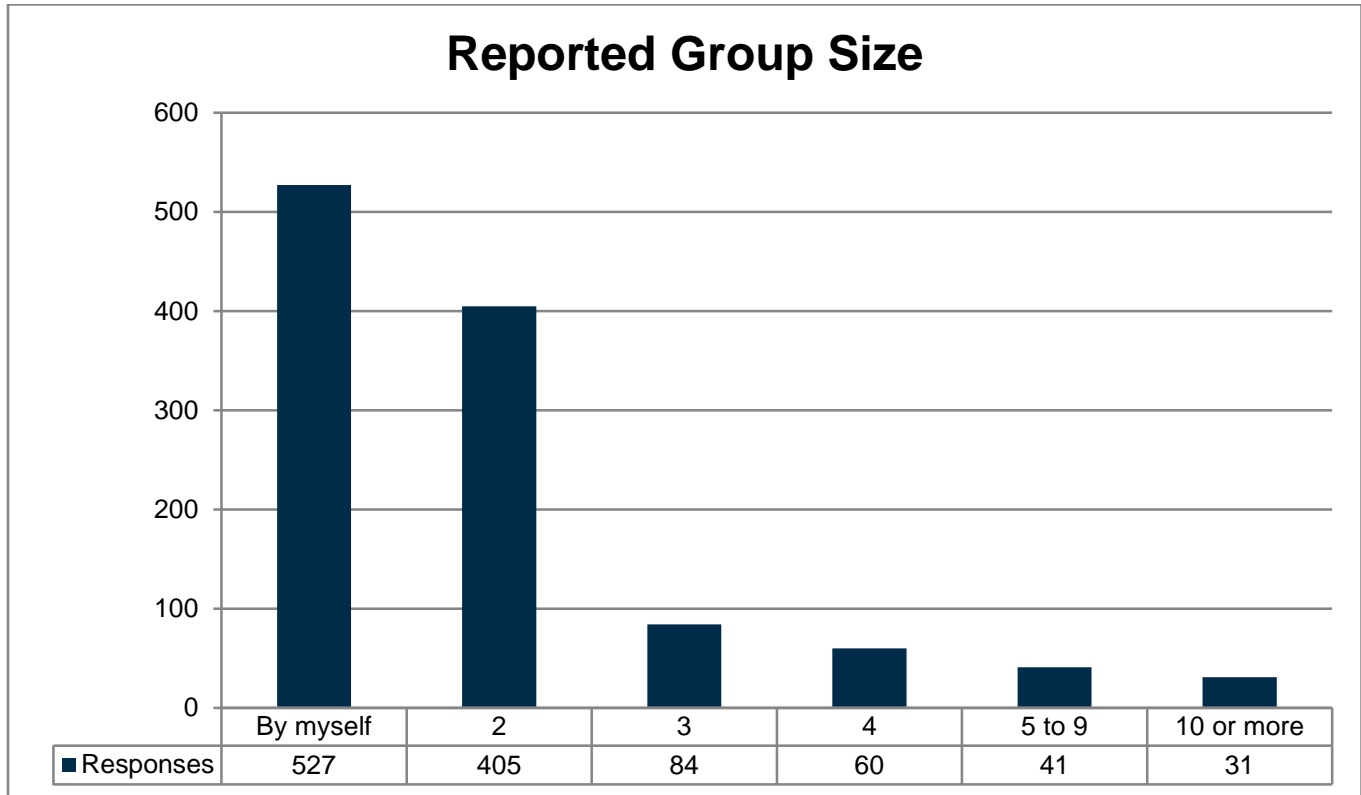
Active modes represent just over half of the responses to the survey. The total of Bike, Walk and Transit Bus responses (576) exceeds the number of trail users who reported getting to the trails by automobile (570). With essentially a 50-50 split, the importance of connecting neighborhoods to the trails with good low stress connections for comfortable bicycle and pedestrian access is reinforced.

<b>Question # 5</b>	<b>1,051 responses</b>	<b>89.8% response rate</b>	<b>New for 2017? No</b>
Q. Where did you access the trail today? Response options: Fill-in text response			

The complete list of responses to this question is provided in the Appendices to this report. The responses are broken down by Survey Location. No chart is provided for this data.

<b>Question # 6</b>	<b>1,157 responses</b>	<b>98.9% response rate</b>	<b>New for 2017? YES</b>
Q. How many people (including you) are in your group out on the trails today? Response options: By myself; 2; 3; 4; 5 to 9; 10 or more			

The purpose of this new question was to get a different look at how people are using the trails. The chart below details the responses received.



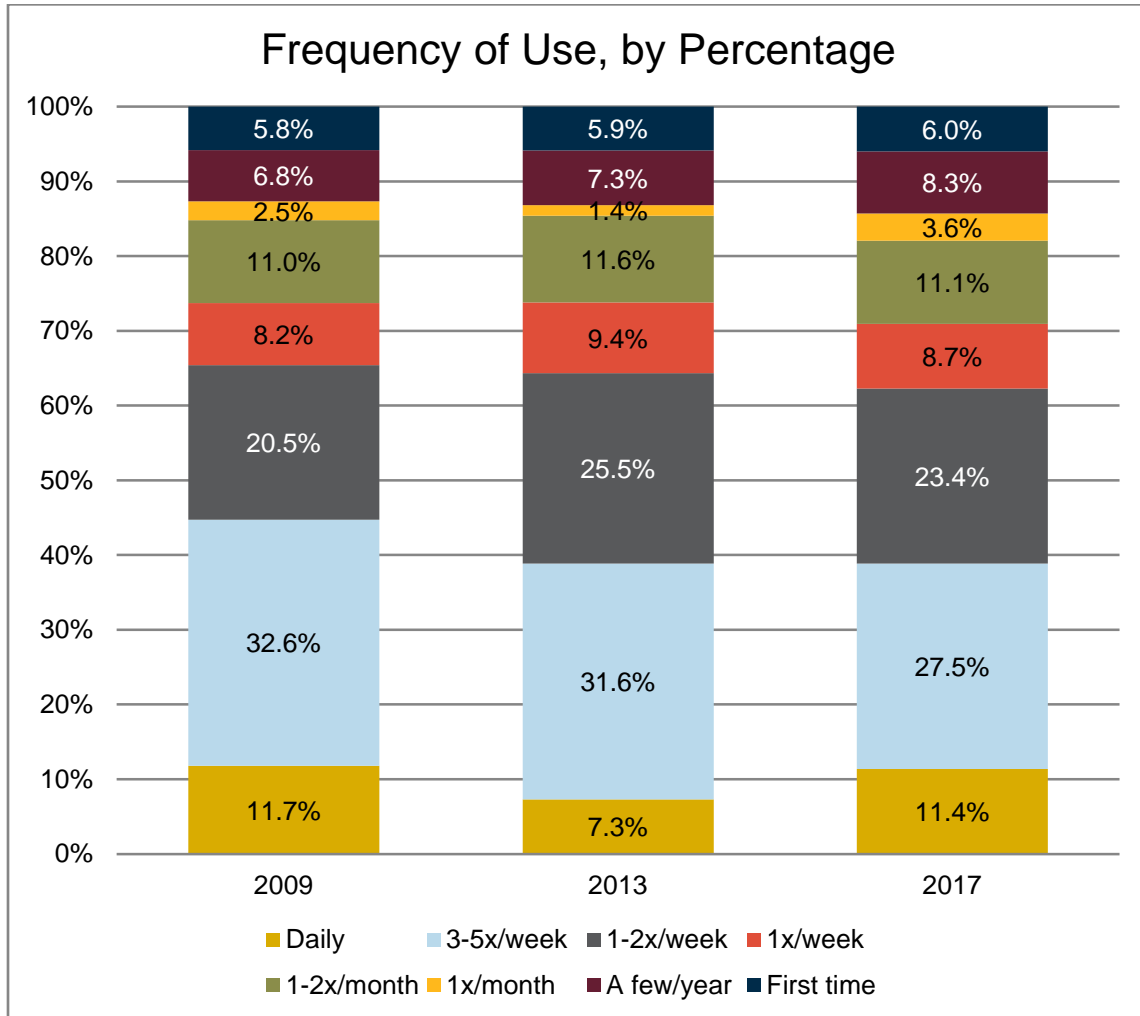
The responses “By myself” and “2” were the most frequently selected responses in all counties. Regionally those responses represented 80 percent of all survey takers. All counties generally fell in a range of 75 percent to 85 percent for those two responses, whether you look at survey location or home location. Survey respondents from outside Ohio had higher response rates for the two largest categories (“5 to 9,” and “10 or more”), which would indicate the influence of tour groups. Nearly 32 percent of respondents from outside Ohio indicated they were in a larger group.



<b>Question # 7</b>	<b>1,153 responses</b>	<b>98.5% response rate</b>	<b>New for 2017? No</b>
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Q. How often, on average, do you use the trail?  
 Response options: Daily; Between 3 and 5 times per week; 1 or 2 times per week; Once a week; A couple of times a month; Once a month; A few times per year; First time.

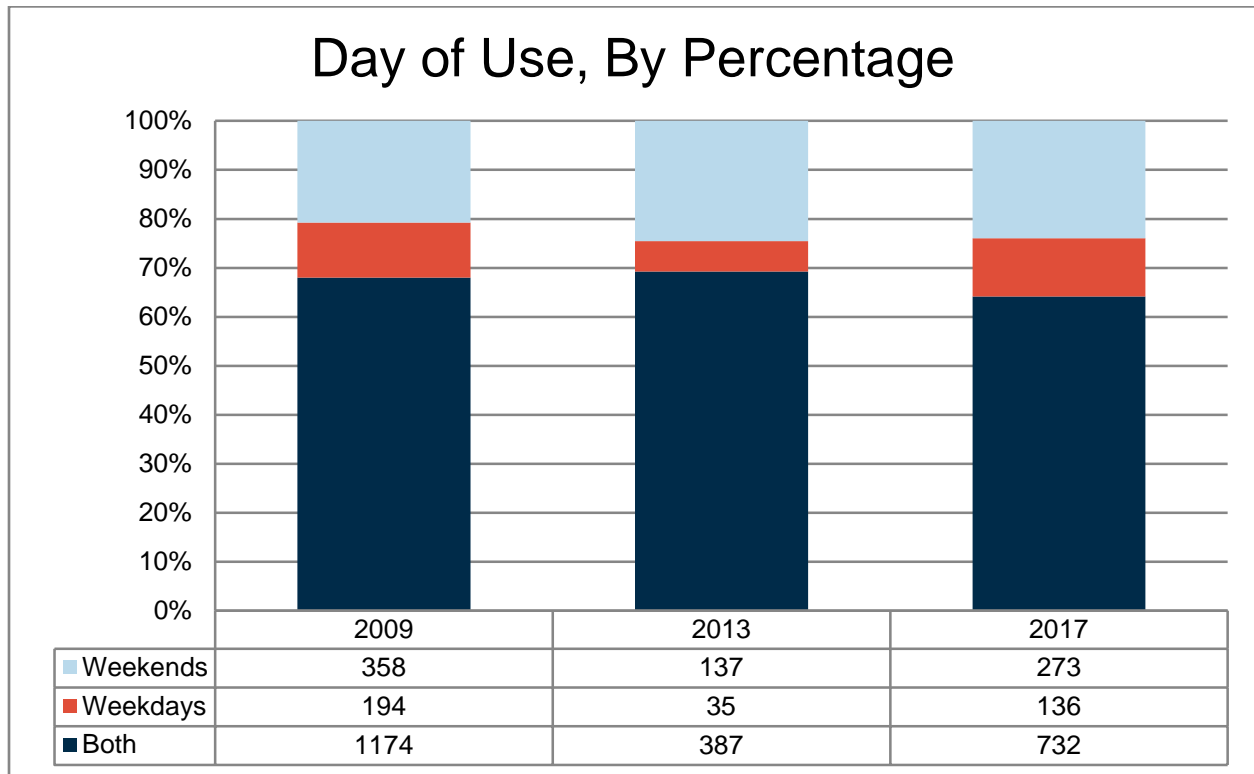
This question about frequency of use is a factor for the inputs to the economic impact analysis section of the report. The breakdown of the survey responses in 2017 was very similar to those found in prior survey years. The chart below details the responses in comparison to past surveys.



As in past years, over 70 percent of survey respondents report using the trails at least once per week. For purposes of the economic impact analysis, this report assumes these frequencies apply for seven months of the year, excluding the colder months of November through March.

<b>Question # 8</b>	<b>1,141 responses</b>	<b>97.5% response rate</b>	<b>New for 2017? No</b>
Q. When do you use the trail? Response options: Weekdays; Weekends; Both.			

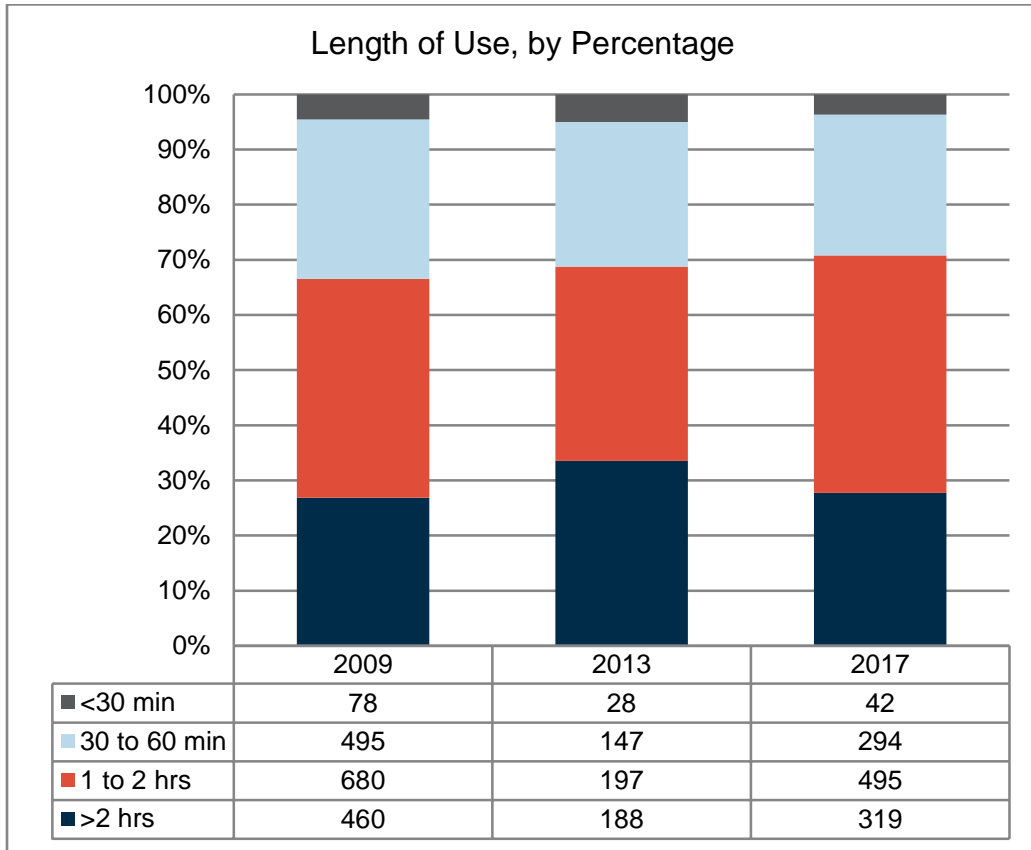
This question helps to assess patterns and purposes of use. The chart below details the responses received.



This question shows consistent responses over the three surveys. Between 60 and 70 percent of survey respondents report using the trails on both weekdays and weekends. This response is consistent with data from Question 7 indicating that over 60 percent of respondents use the trails 1 or 2 times per week or more.

<b>Question # 9</b>	<b>1,150 responses</b>	<b>98.3% response rate</b>	<b>New for 2017? No</b>
Q. How much time do you generally spend on the trail each visit? Response options: Less than 30 minutes; 30 minutes to 1 hour; 1 to 2 hours; more than 2 hours.			

This question gives a clue into how far trail users travel along the trail. The chart below details the 2017 responses in comparison to past surveys.

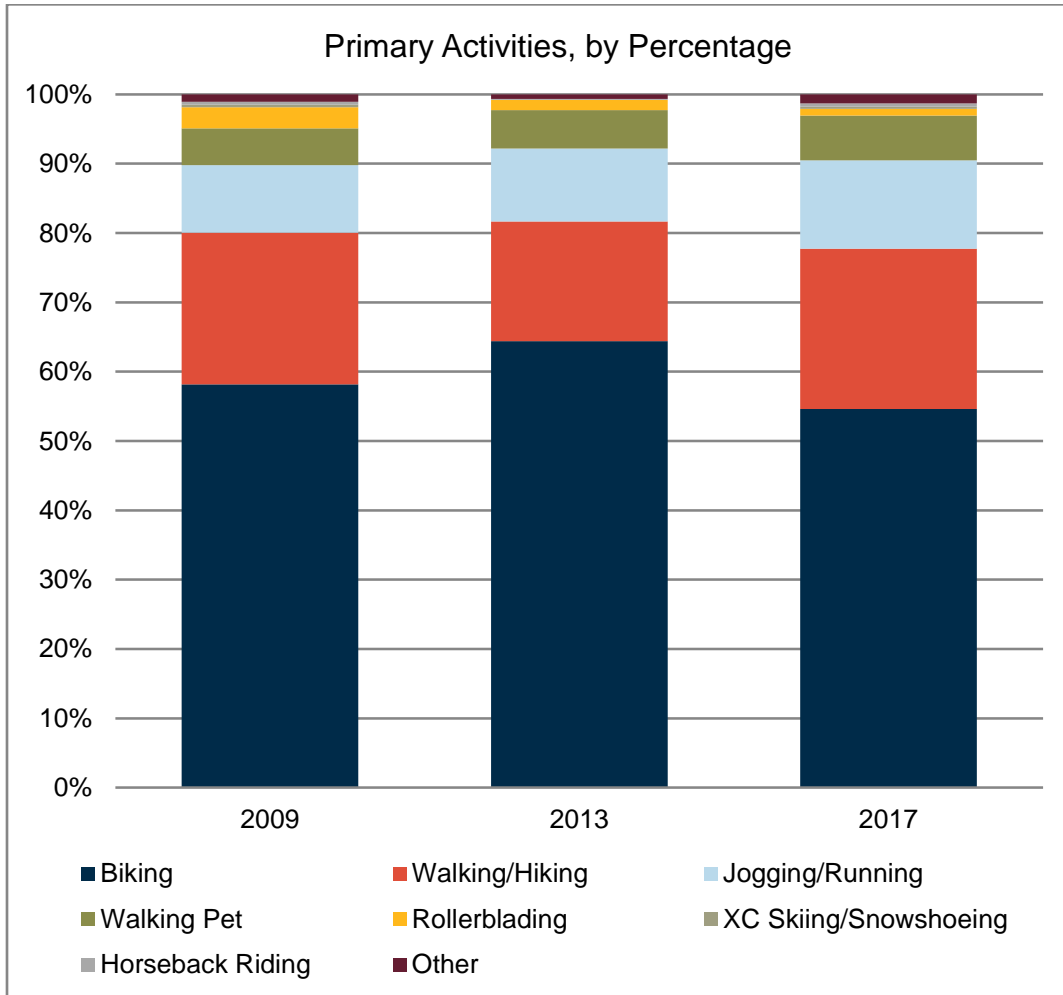


Again, the 2017 data is consistent with past years. Trail users who report using the trail for more than an hour represent 65 to 70 percent of all trail users.

<b>Question # 10</b>	<b>1,160 responses</b>	<b>99.1% response rate</b>	<b>New for 2017? No</b>
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Q. What is/are your primary activity/activities on the trail?  
 Response options: Walking/Hiking; Biking; Jogging/Running; Rollerblading; Walking Pet; Horseback Riding; XC Skiing/Snowshoeing; Other (please specify).

Knowing what activities trail users are enjoying on the trails can help the trail managing agencies plan and develop programming for trail users. The chart below depicts the responses from 2017 in comparison with prior surveys.

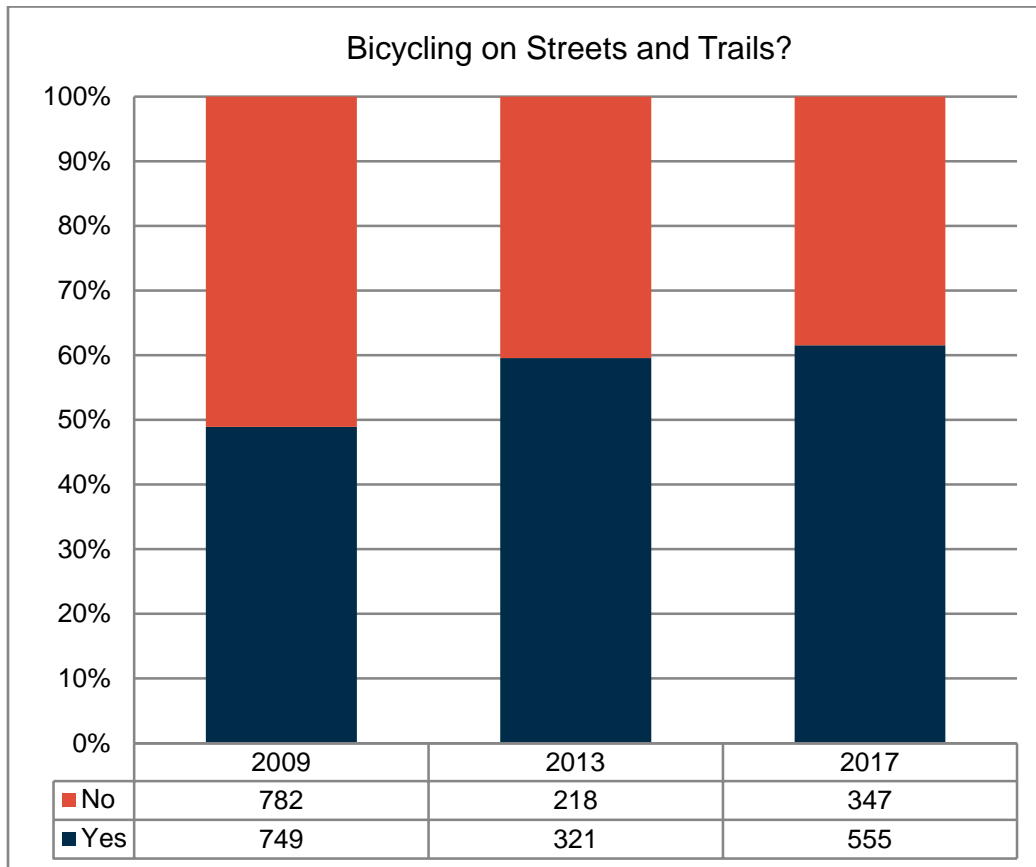


As with other questions, the responses here are consistent with past surveys. Biking remains the most common response and biking, walking and running make up 90 percent of all responses. Some common responses in the “Other” category included: Skateboarding or Longboarding (5), Fishing (3), Bird Watching (2), Kayaking/Canoeing (2), Commuting (2), and Pokemon Go (2).

<b>Question # 11</b>	<b>902 responses</b>	<b>77.1% response rate</b>	<b>New for 2017? No</b>
Q. If you use the trails for bicycling, do you ALSO bike on streets and roads? Response options: Yes; No.			

The purpose of this question is to learn what portion of the trail-biking public are also road cyclists. The lower response rate is due to the question only being intended for those who reported in Question 10 that they bike on the trails. However, the online survey did not use Google Forms to restrict who could answer the question.

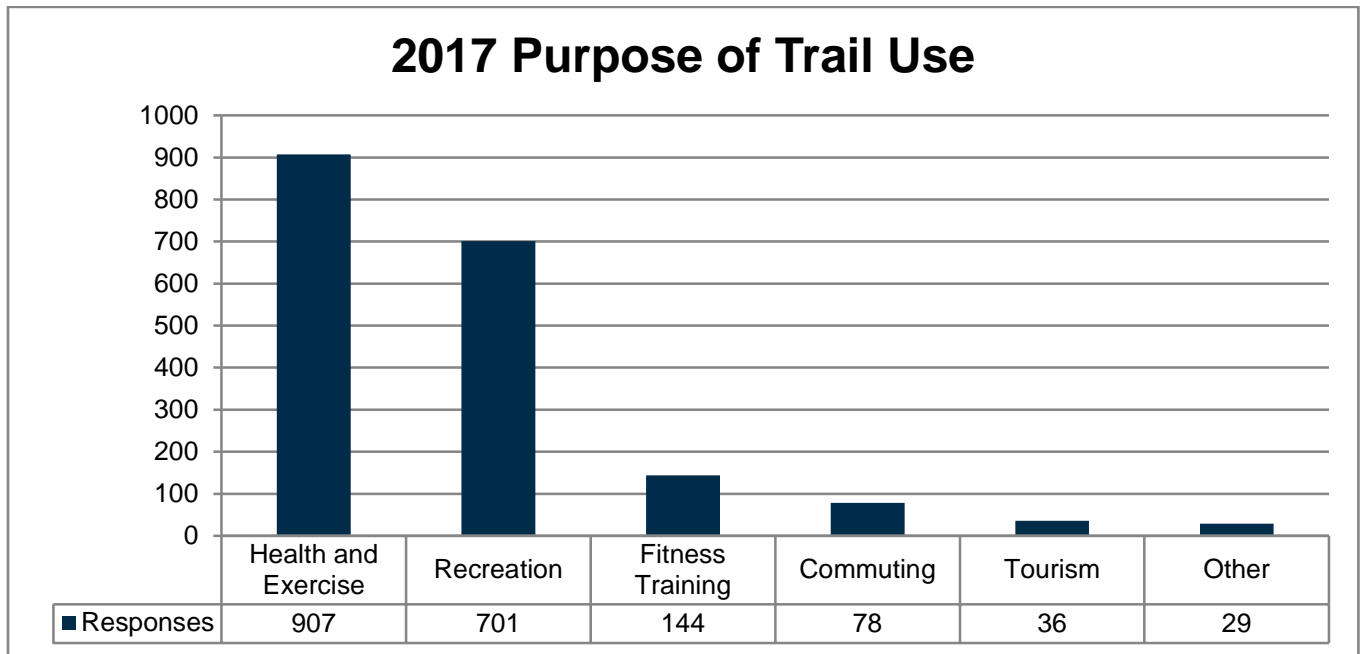
The chart below shows the responses from 2017 in comparison to past years.



The change from 2009 to 2013 was a statistically significant increase in the “yes” response. The change from 2013 to 2017 is not. As in 2013, roughly 60 percent of trail cyclists report that they also are road cyclists.

<b>Question # 12</b>	<b>1,157 responses</b>	<b>98.9% response rate</b>	<b>New for 2017? No</b>
Q. Would you consider your use of the trails to be for (choose up to 2)... Response options: Recreation; Health and Exercise; Commuting; Fitness Training; Tourism.			

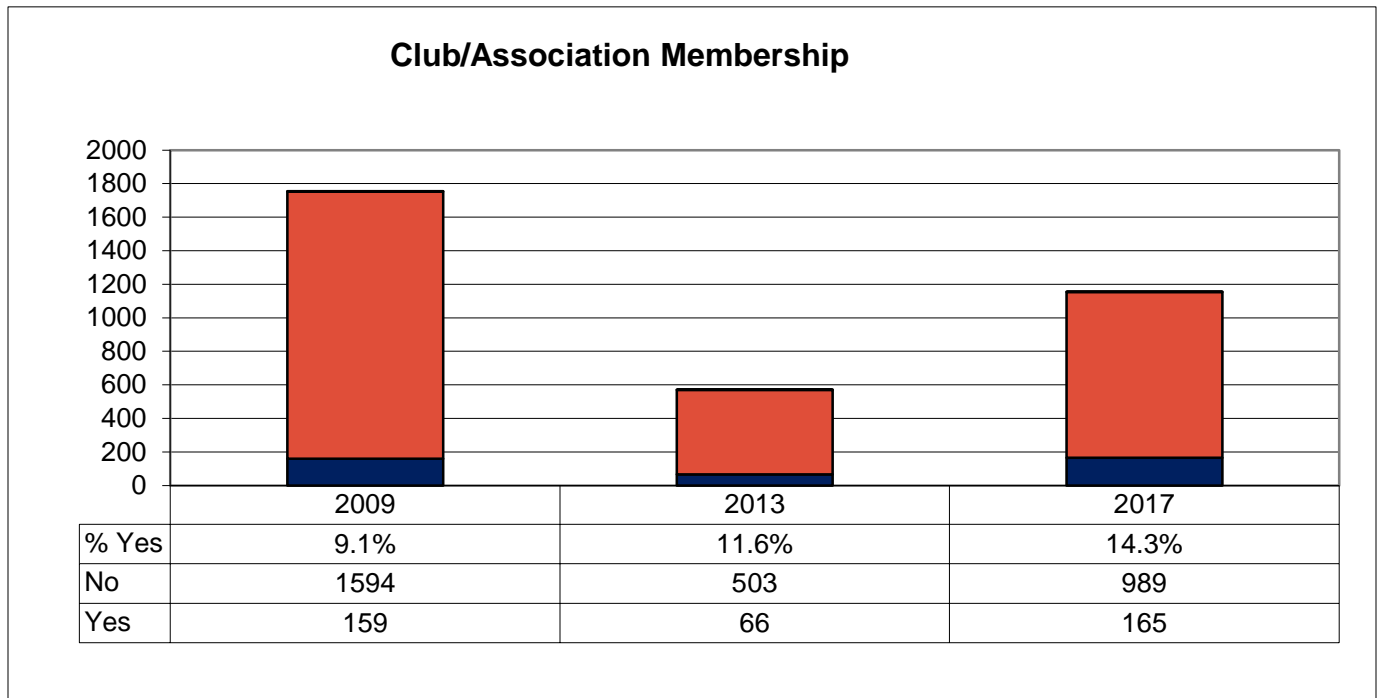
While the question is not entirely new, there were modifications this year over past years. Respondents were permitted to select two answers this year, while in the past they were restricted to one response. Also, "Tourism" was added as an option.



Because two responses were collected per survey, the results are not directly comparable to prior surveys. However, in both 2009 and 2013 "Health and Exercise" was the top selection and "Recreation" was second. So the data are consistent with past years.

<b>Question # 13</b>	<b>1,154 responses</b>	<b>98.6% response rate</b>	<b>New for 2017? No</b>
Q. Are you a member of a club/association that uses the trails? Response options: Yes; No.			

Clubs with trail-based activities can be tremendous advocates for trails and trail-related funding. So it is important to know what clubs and associations are in the region with which advocates and trail managing agencies can engage for volunteers and advocacy.

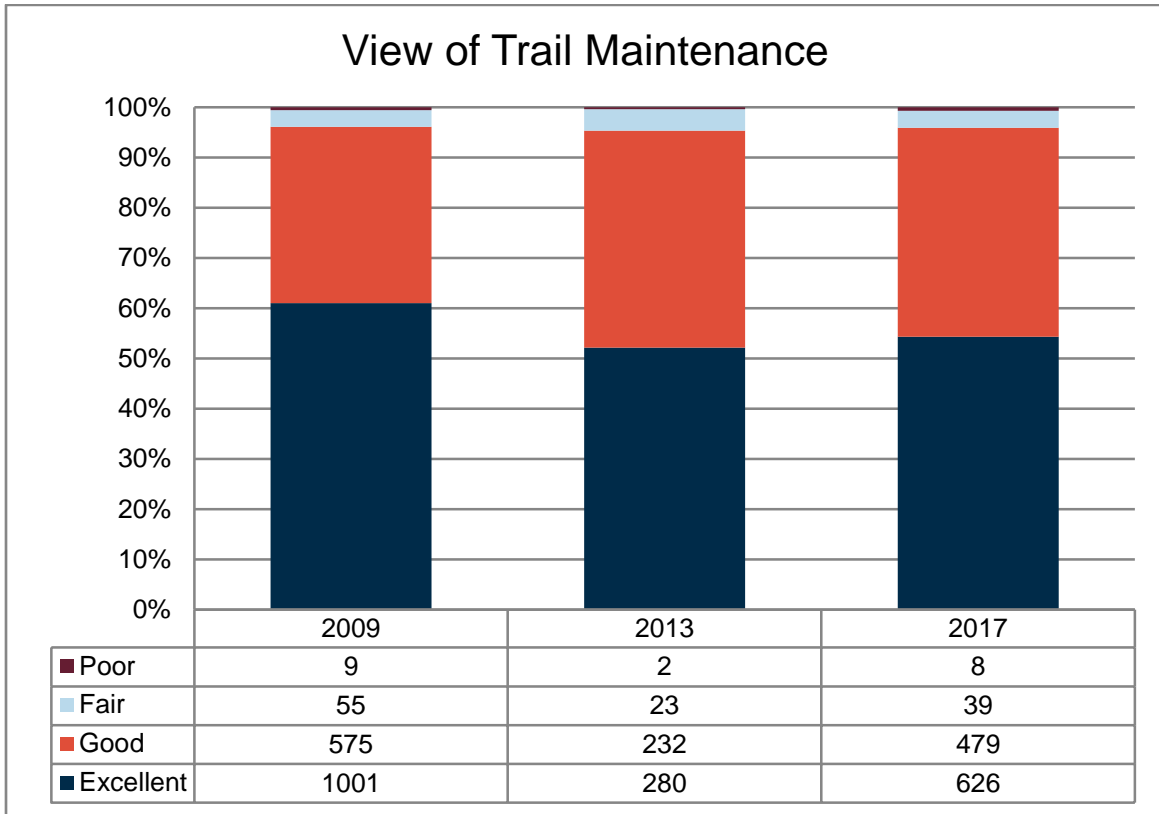


The 2017 survey had the highest “Yes” response rate to this question of the three surveys. The follow on question asks for the name of the club (if “Yes”). The most common answers there were:

- The Dayton Cycling Club (26)
- Ohio River Road Runners’ Club (10)
- Buckeye Trail Association (9)
- Bike Miami Valley/Chapters (8)
- Simon Kenton Pathfinders (7)
- Boy Scouts of America (6)
- Friends of the Little Miami State Park (5)
- Major Taylor Cycling Club of Dayton (5)
- Running Queens (4)
- Rails-to-Trails (4)
- Dayton Hikers (3)
- Cyclepaths Bike Club (3)

<b>Question # 14</b>	<b>1,152 responses</b>	<b>98.5% response rate</b>	<b>New for 2017? No</b>
Q. In your opinion, the MAINTENANCE of the trail is...			
Response options: Excellent; Good; Fair; Poor.			

This and the next two questions seek to assess user satisfaction with the trails. For 2017, the online survey offered respondents the opportunity to make specific comments about Maintenance, Safety and Security, and Cleanliness. Those comments, sorted by Survey Location, are provided in the Appendices. Note that there was not a comment prompt with these questions on the paper survey.



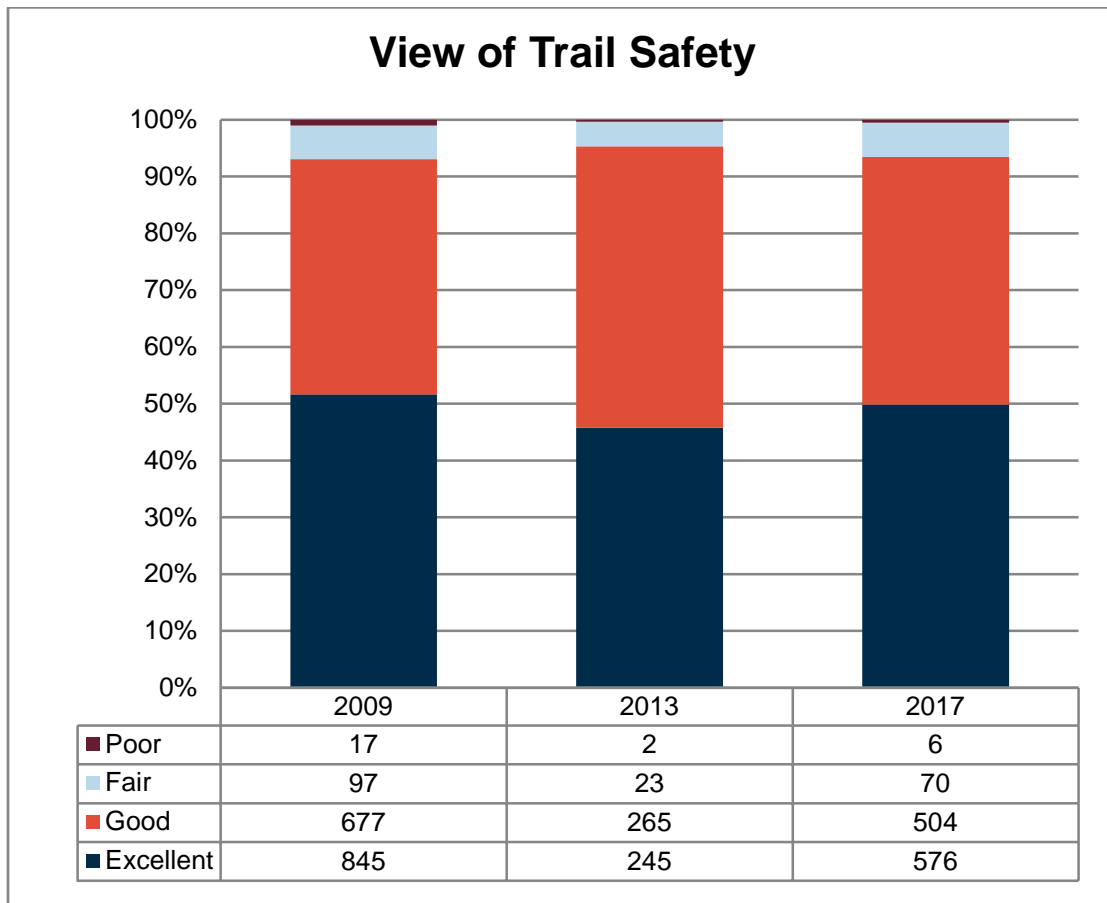
User satisfaction with the condition of the trails remains high in 2017, with over 95 percent of responses being “Excellent” or “Good.” The Appendices provide results of this question by county.



<b>Question # 15</b>	<b>1,156 responses</b>	<b>98.8% response rate</b>	<b>New for 2017? No</b>
Q. In your opinion, your SAFETY and SECURITY along the trail is...			
Response options: Excellent; Good; Fair; Poor.			

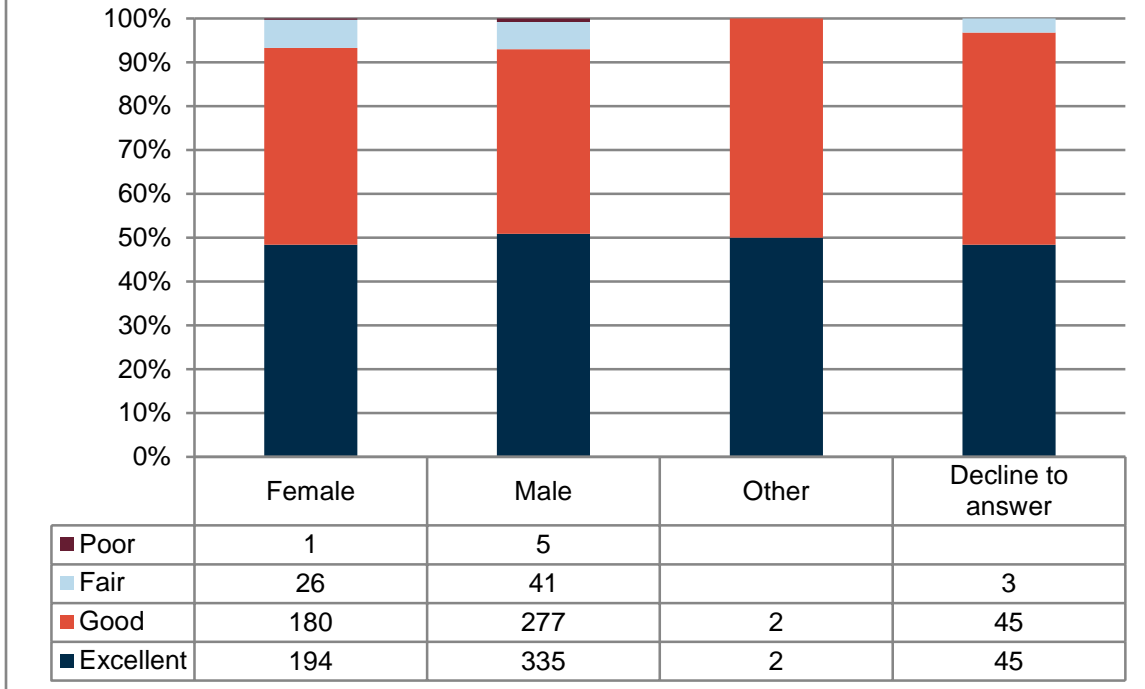
Questions 14 through 16 seek to assess user satisfaction with the trails. For 2017, the online survey offered respondents the opportunity to make specific comments about Maintenance, Safety and Security, and Cleanliness. Those comments, sorted by Survey Location, are provided in the Appendices. Note that there was not a comment prompt with these questions on the paper survey.

The chart below depicts the 2017 survey results in comparison to past years.



In this category as well, user satisfaction remains high, with over 93 percent of responses either “Excellent” or “Good.” For 2017, the data for this question was also analyzed by gender to see if males and females had different responses to the safety and security question. This assessment was not done in prior years. The chart on the next page displays the results for 2017.

## Safety/Security Responses by Gender



There appears to be no statistically significant difference between genders when it comes to perceptions of safety and security along the trails. Responses to safety and security seem to be generally the same across the region, with six of the seven survey counties reaching about the 90 percent mark for “Excellent” or “Good” responses. The exception is Warren County where that total was just over 79 percent.<sup>8</sup>

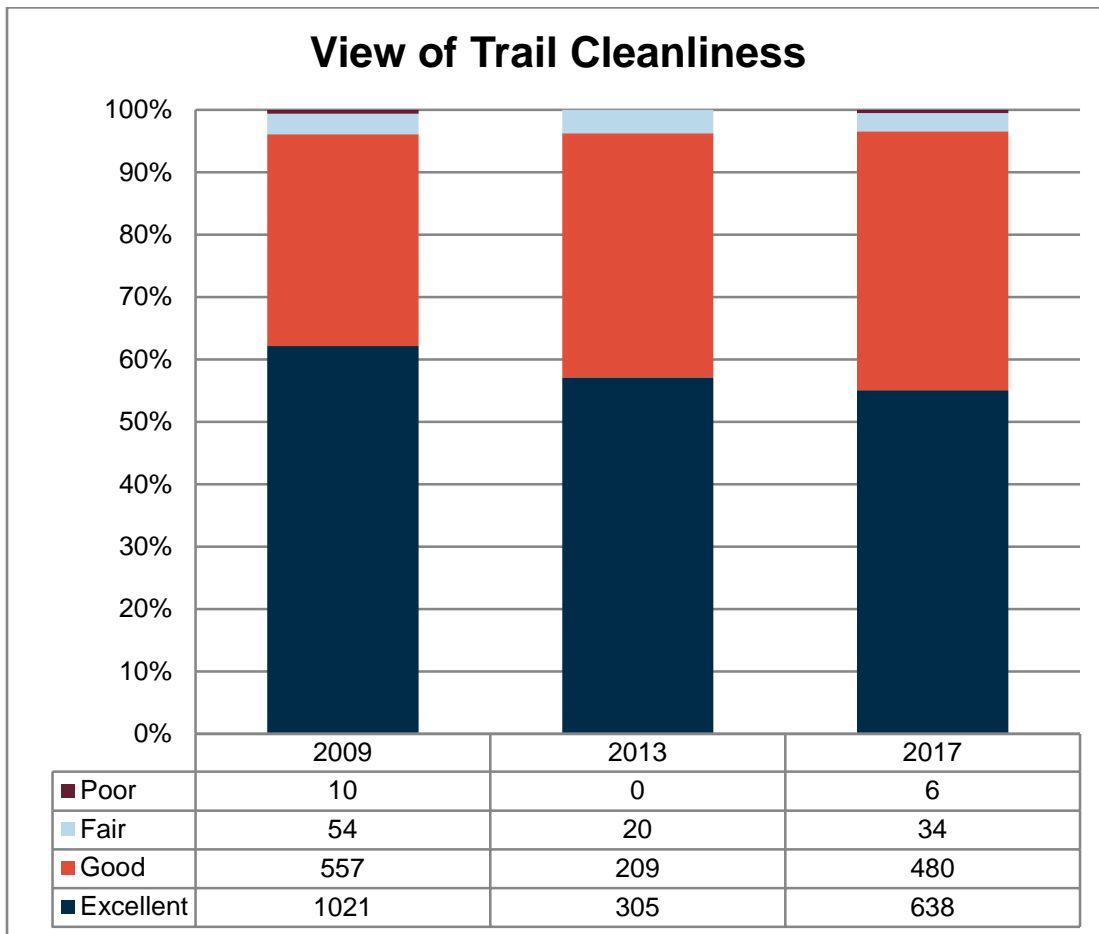
It appears the trail users from outside the region have a generally higher perception of trail safety and security than users who reside in the region. Over 63 percent of users from “Other Ohio County” or “Outside Ohio” rated the Miami Valley Trails as “Excellent” for safety and security.

<sup>8</sup> Note that the only Warren County survey location was in Franklin, Ohio, along the Great Miami River Trail. For this project there were no survey locations along the Little Miami Scenic Trail in Warren County.

<b>Question # 16</b>	<b>1,158 responses</b>	<b>99.0% response rate</b>	<b>New for 2017? No</b>
Q. In your opinion, the CLEANLINESS of the trail is... Response options: Excellent; Good; Fair; Poor.			

Questions 14 through 16 seek to assess user satisfaction with the trails. For 2017, the online survey offered respondents the opportunity to make specific comments about Maintenance, Safety and Security, and Cleanliness. Those comments, sorted by Survey Location, are provided in the Appendices. Note that there was not a comment prompt with these questions on the paper survey.

The chart below depicts the 2017 survey results in comparison to past years.

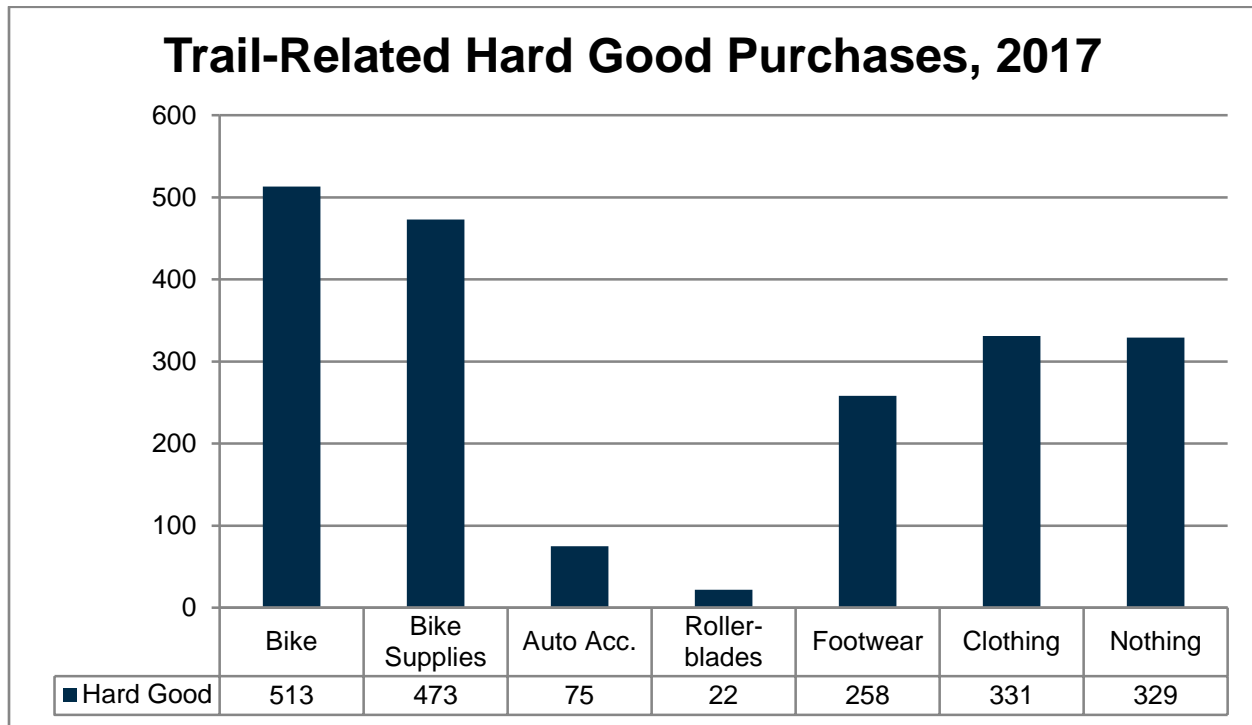


As with the prior questions and the prior surveys, user satisfaction with trail cleanliness is high, with over 96 percent rating them “Excellent” or “Good.” Again this pattern holds across most of the region, with Warren County again the exception. Noticeably fewer respondents in Warren County rated cleanliness “Excellent” and the total of Excellent and Good was less than 90 Percent.

Similar to Safety and Security, trail users from outside the region tend to have higher opinions of trail cleanliness than users who reside in the region. Over 67 percent of users from outside the survey counties rated cleanliness as excellent, compared to 52 percent of regional residents.

<b>Question # 17</b>	<b>1,141 responses</b>	<b>97.5% response rate</b>	<b>New for 2017? No</b>
Q. Has your use of the trail influenced your purchase of...			
Response options: Bike; Bike Supplies; Auto Accessories; Rollerblades; Footwear; Clothing; Nothing.			

Questions 17 through 19 are the key questions for developing the estimate of direct economic impact of trail users related to their trail use.



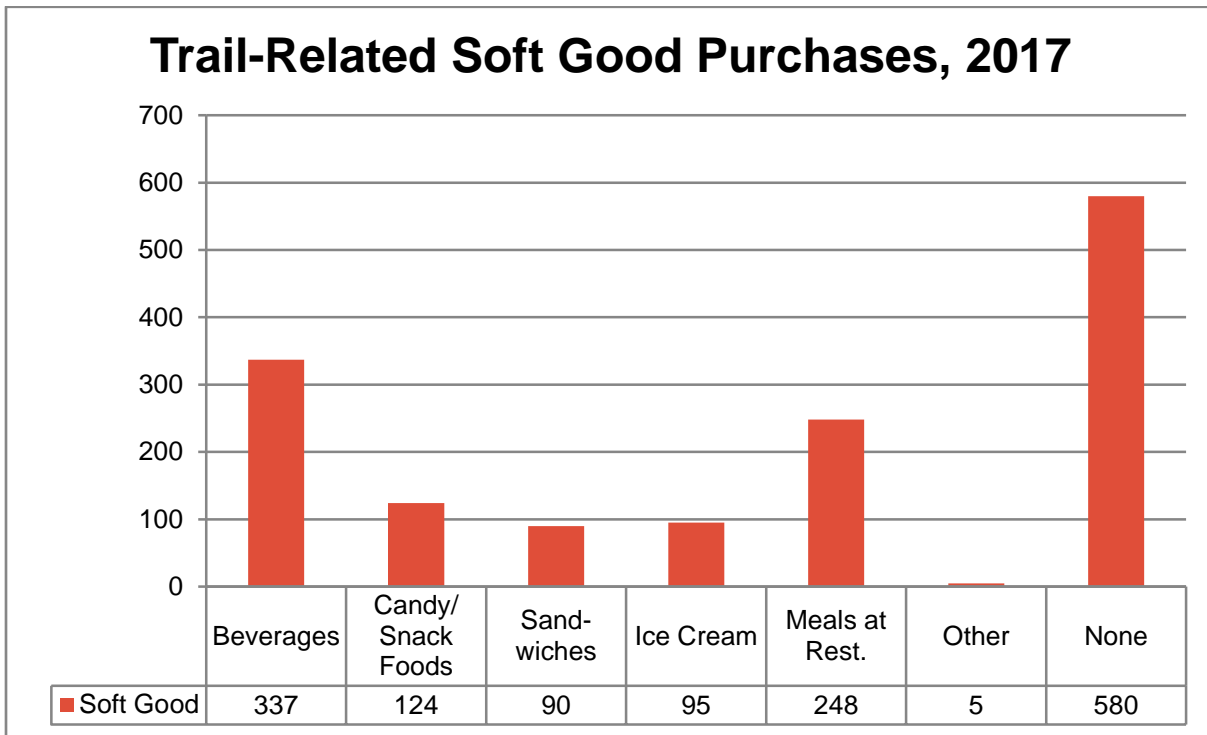
The results for this question look very similar to past surveys, with the highest responses coming for bike-related items. The key number here is the “Nothing” category. With 329 out of 1,141 reporting no purchases related to trail use, that calculates to a 28.8 percent “Nothing” response. Conversely, 71.2 percent of respondent indicate they did purchase something related to their trail use.

Respondents who did not answer “Nothing” to this question were asked about how much they had spent in the past 12 months on these trail-related items. The average of the responses to that question was **\$507.22**. This number was about \$56 less than the average of the responses in 2013.

<b>Question # 18</b>	<b>1,122 responses</b>	<b>95.9% response rate</b>	<b>New for 2017? No</b>
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Q. On your most recent trip to the trail did you purchase any of the following:  
 Response options: Beverages; Candy/Snacks; Sandwiches; Ice Cream; Meals at a restaurant along the trail; Admission to museum/attraction; None of these.

Questions 17 through 19 are the key questions for developing the estimate of direct economic impact of trail users related to their trail use.



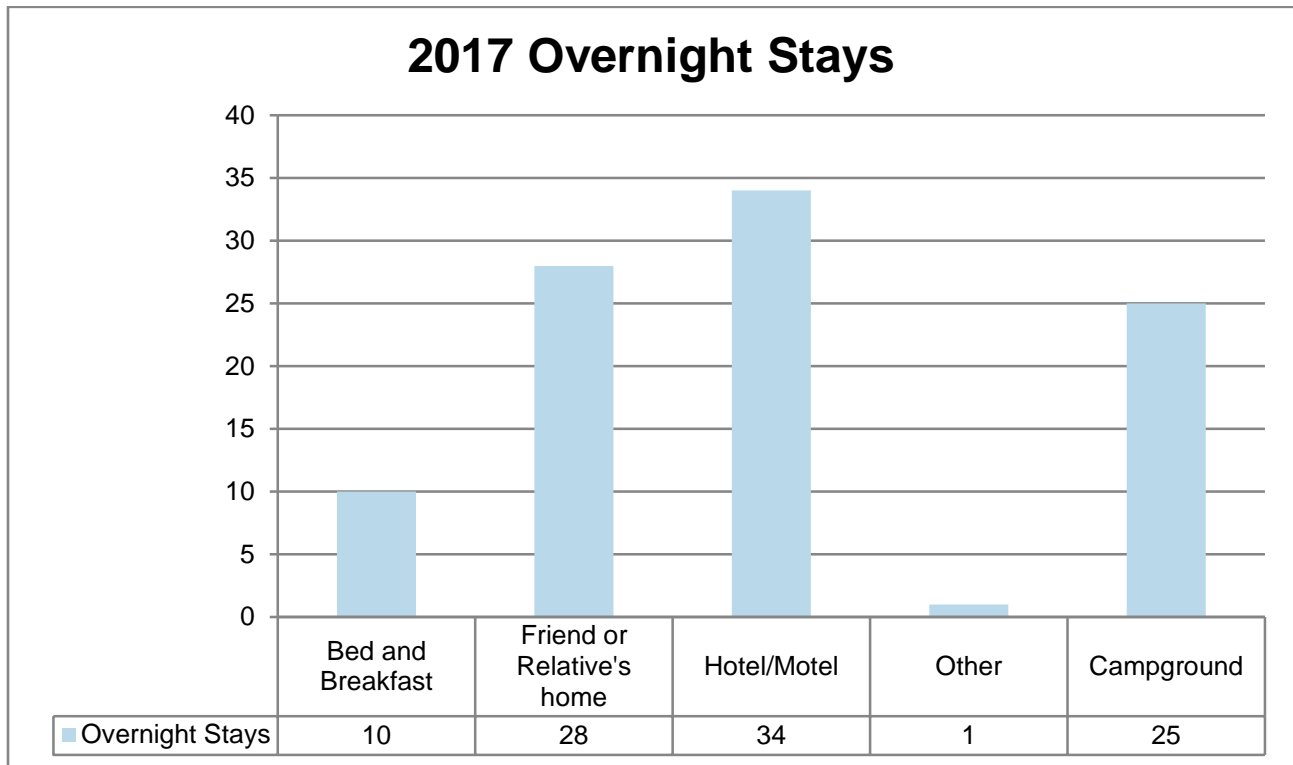
The results for this question look very similar to past surveys, with the highest responses coming for “None,” with the next highest being beverages and meals. The key number here is the “None” category. With 580 out of 1,122 reporting no soft-good purchases related to trail use that calculates to a 51.7 percent “Nothing” response. Conversely, 48.3 percent of respondents indicate they did purchase some consumable good related to their trail use.

Respondents who did not answer “None” to this question were asked about how much they had spent per person on these soft goods. The average of the responses to that question was **\$13.07**. This number was less than the average of the responses in 2013, but about the same as in 2009.

<b>Question # 19</b>	<b>1,055 responses</b>	<b>90.2% response rate</b>	<b>New for 2017? No</b>
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Q. Did your trail visit include an overnight stay in one of these accommodations?  
 Response options: Hotel/Motel; Bed and Breakfast; Friend or Relative’s Home; Campground; No overnight stay.

Questions 17 through 19 are the key questions for developing the estimate of direct economic impact of trail users related to their trail use.



The results for this question look very similar to past surveys, with the highest responses coming for “No overnight stay” at 956 (not charted). As in past years hotel/motel is the most popular response for those who did stay, followed by “Friend or Relative’s Home.” The key number here is the “No overnight stay” category. With 956 out of 1,055 reporting no lodging purchases related to trail use that calculates to a 90.6 percent “No” response. Conversely, 9.4 percent of respondents indicate they did have an overnight stay related to their trail use.

Respondents who did not answer “No overnight stay” to this question were asked about how much they had spent per night on the stay. The average of the responses to that question was **\$108.61**. This number was higher than the average of the responses in 2013 and 2009.

Respondents who did not answer “No overnight stay” to this question were asked how many nights they had spent with their most recent stay. The average of the responses to that question was **3.1**. This number was higher than the average of the responses in 2013 and 2009.

<b>Question # 20</b>	<b>1,164 responses</b>	<b>99.5% response rate</b>	<b>New for 2017? No</b>
Q. What is your zip code? Response options: Fill-in response			

Questions 20 through 25 were common demographic questions, to help assess the populations using the trails.

Of the 1,164 zip code responses, 1,155 were found to be valid. Invalid responses included 4-digit and 6-digit responses. The map on the next page depicts the zip codes reported to the survey, with color-coding used to indicate more frequent responses. In past years, the zip code analysis was based on reported zip codes either inside or outside of the four core counties of the Miami Valley Trails: Clark, Greene, Miami and Montgomery. For 2017, this analysis will be extended to the seven counties of the survey project.<sup>9</sup>

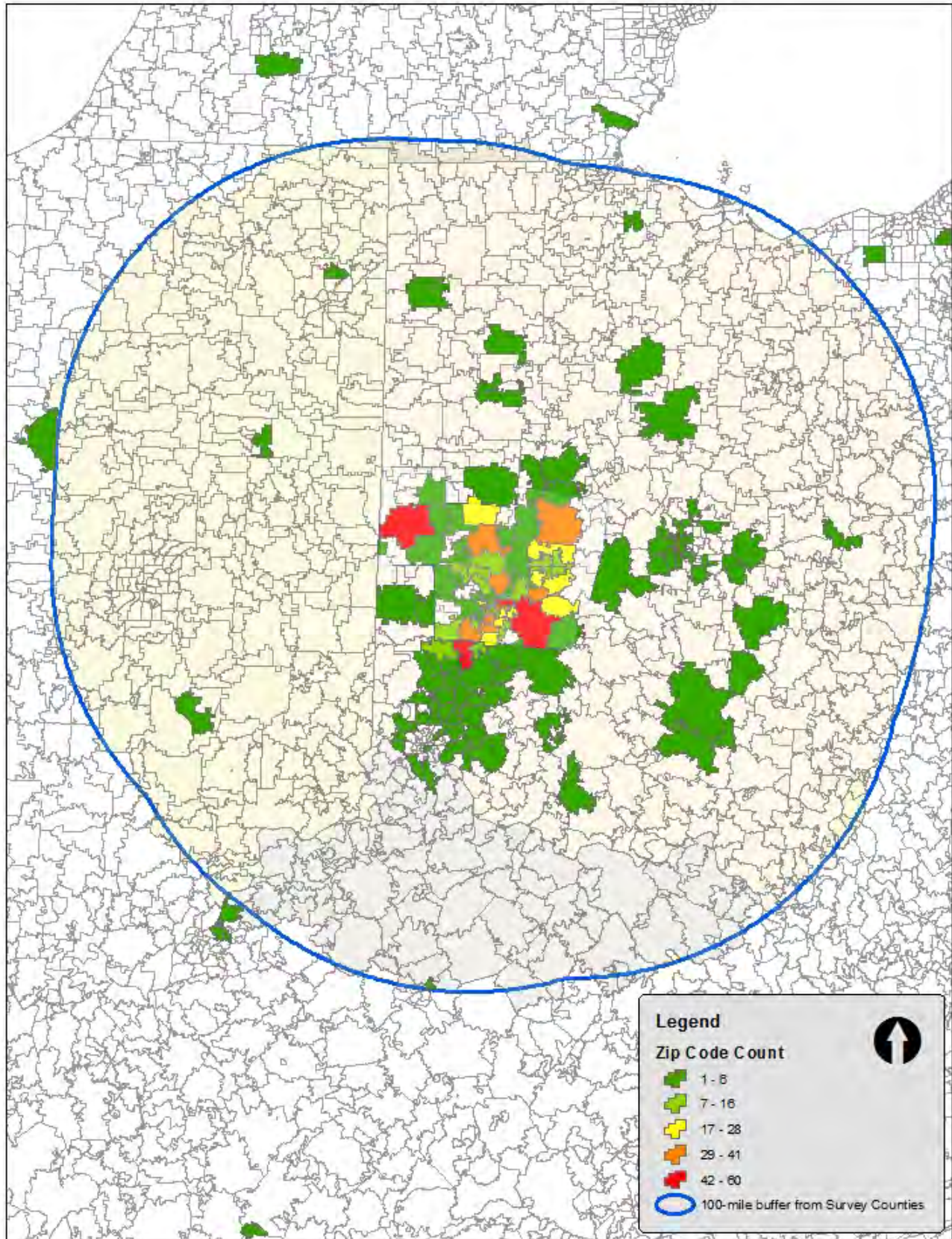
In addition, based on information from professionals from the Convention and Visitors Bureaus, there is a separate analysis of survey responses indicating zip codes more than 100 miles from these seven survey counties. One hundred miles is considered the dividing line between a day trip with no overnight stay, and an overnight trip, which would include lodging. The results of the analyses are as follows:

<b>Geography</b>	<b>Zip Code Count</b>	<b>Survey Count</b>
Within 4 Counties (CLA, GRE, MIA, MOT)	51	801
Within 7 Survey Counties	60	958
Outside 7 Survey Counties	122	197
Outside 100 miles from 7 Survey Counties	39	50

The map indicates that even though the Miami Valley Trails are relatively close to parts of eastern Indiana, and even Indianapolis, few users cross the state line to experience the Miami Valley Trails. Users do come from a similar distance from Central Ohio, which may indicate the need for increased or different marketing of the Miami Valley Trails in Indiana.

<sup>9</sup> Note that only the jurisdictions of Franklin, Springboro, Carlisle, and Franklin Township are included for Warren County, as no surveys were handed out on the Little Miami Scenic Trail in Warren County.

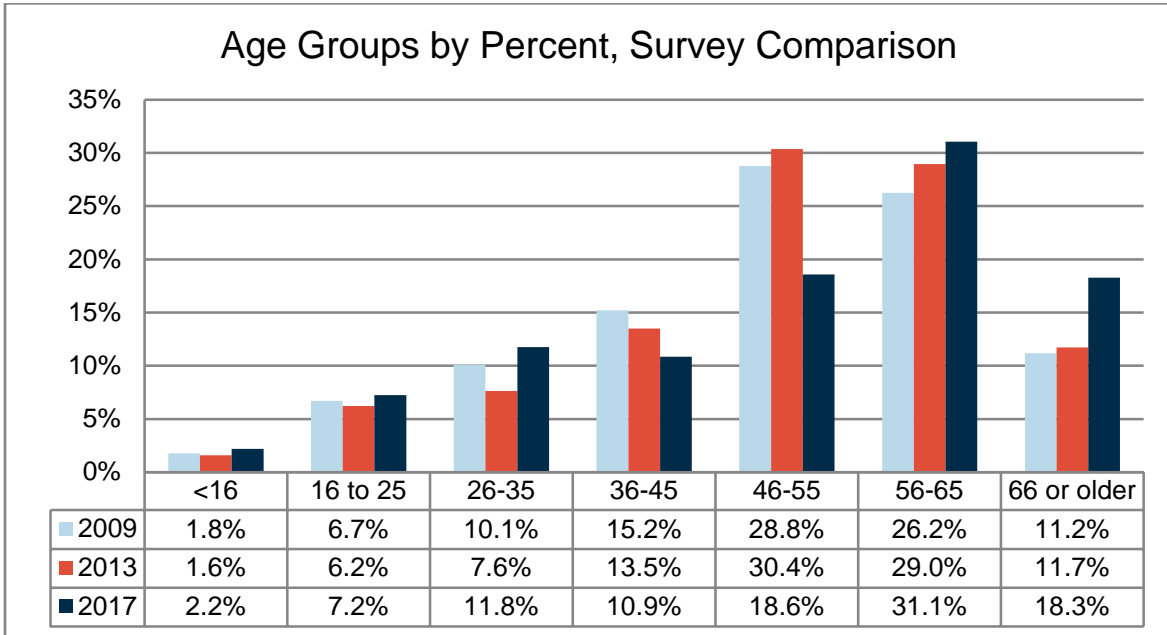
# 2017 Survey Zip Code Responses



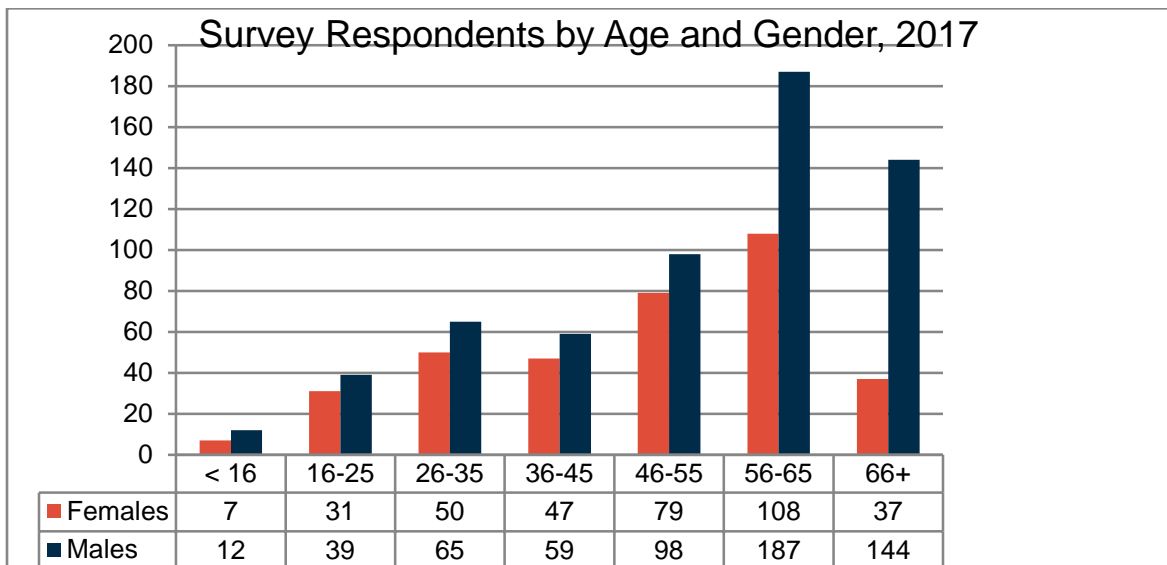


<b>Question # 21</b>	<b>995 responses</b>	<b>85.0% response rate</b>	<b>New for 2017? No</b>
Q. Please identify your age group: Response options: 15 and under; 16 to 25; 26-35; 36-45; 46-55; 56-65; 66 or older.			

Questions 20 through 25 were common demographic questions, to help assess the populations using the trails. The chart below depicts the responses as compared with prior surveys.



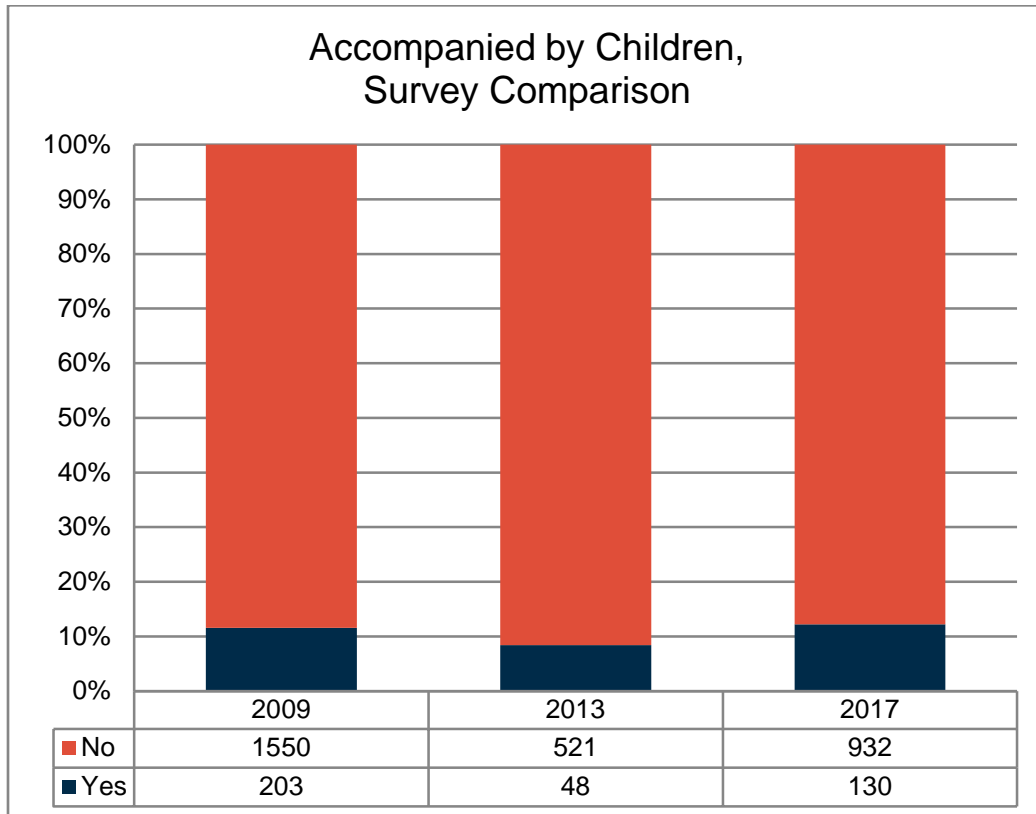
The 2017 data shows a definite reduction in the “middle age” category of 46-55, and a definite increase in the oldest category. The data was also assessed by gender, as shown in the next chart.



The age and gender data shows a pattern seen in earlier surveys that females tend to be a smaller portion of trail users in the older cohorts.

<b>Question # 22</b>	<b>1,062 responses</b>	<b>90.8% response rate</b>	<b>New for 2017? No</b>
Q. Were any children under the age of 15 with you on your trail experience today? Response options: Yes; No.			

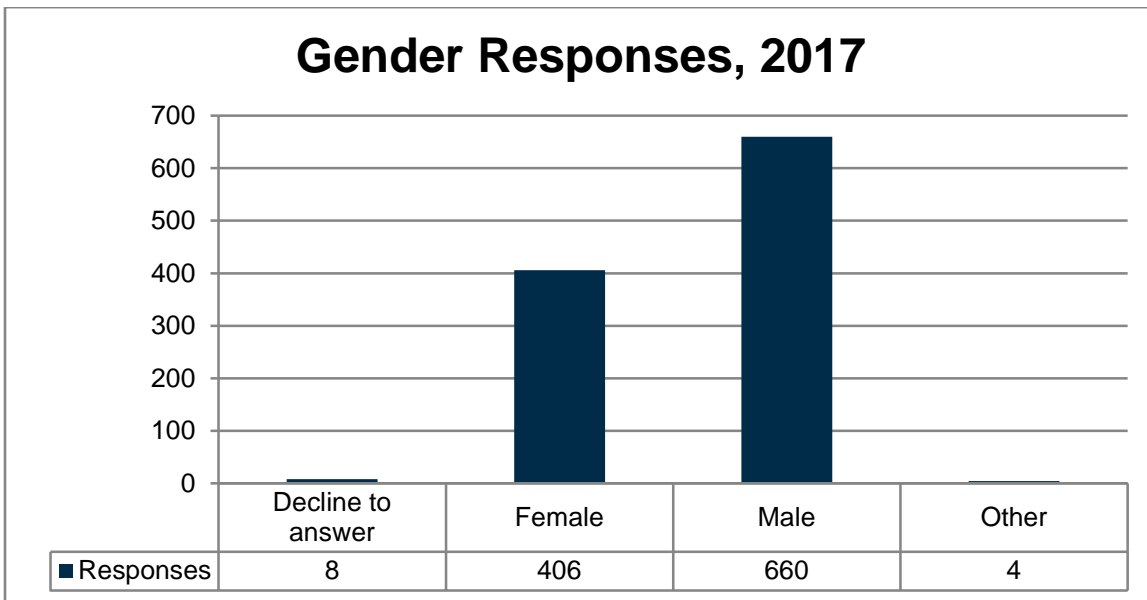
Questions 20 through 25 were common demographic questions, to help assess the populations using the trails. The chart below depicts the responses as compared with prior surveys.



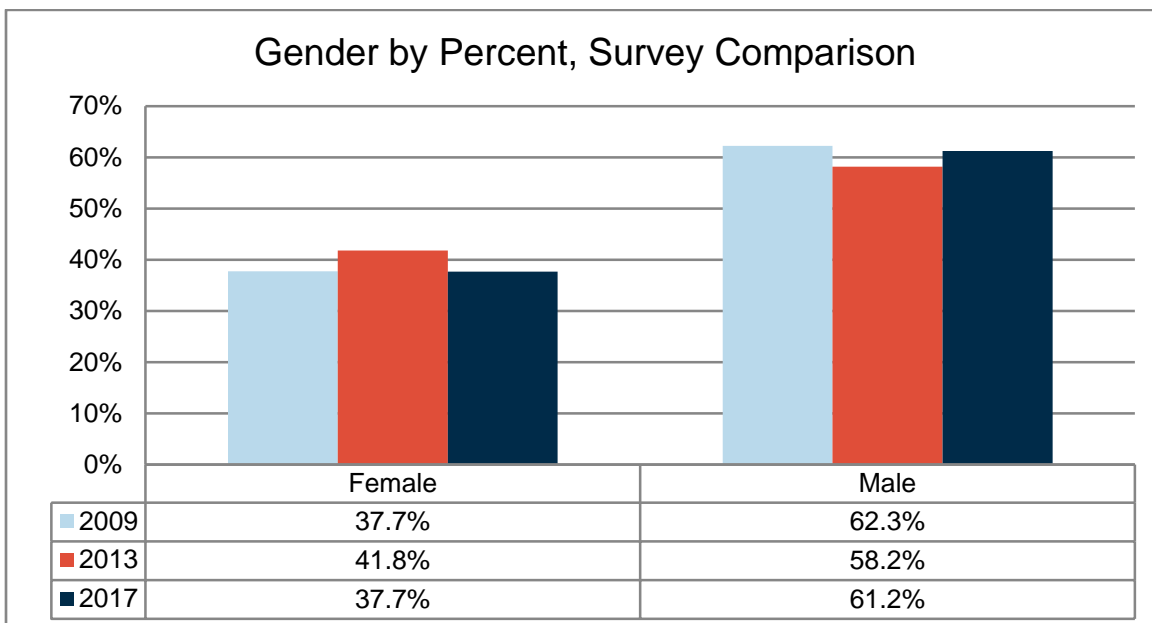
The 2017 survey had the highest “yes” response rate of the three surveys, at 12.2 percent. However, this is not significantly different from 2009’s 11.6 percent.

<b>Question # 23</b>	<b>1,078 responses</b>	<b>92.1% response rate</b>	<b>New for 2017? No</b>
Q. What is your gender? Response options: Female; Male; Other; Decline to answer.			

Questions 20 through 25 were common demographic questions, to help assess the populations using the trails. "Other" and "Decline to answer" were new options this year, so the responses are not directly comparable to past surveys. This chart displays the 2017 responses.

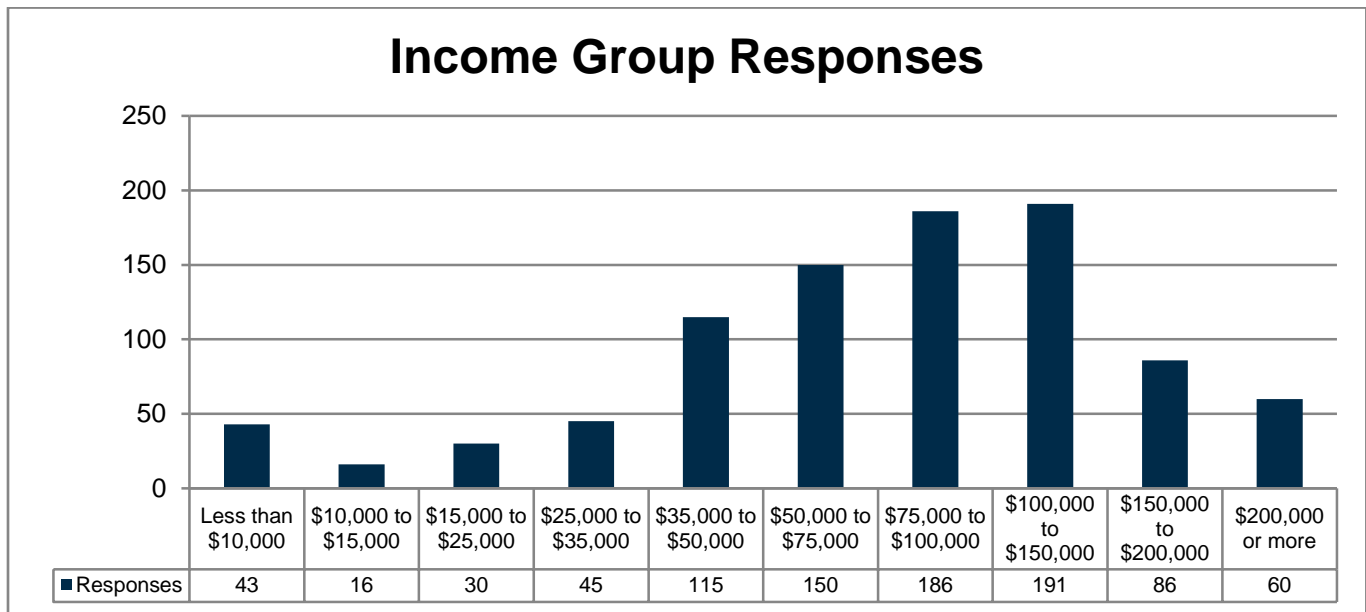


The ratio of "Female" to "Male" responses can be compared with prior years, and is quite similar. In 2017, this ratio was 38.1% to 61.9%. The next chart compares the percentage of "Female" and "Male" responses in the three surveys.



<b>Question # 24</b>	<b>922 responses</b>	<b>78.8% response rate</b>	<b>New for 2017? Yes</b>
<p>Q. What is your HOUSEHOLD income?          Response options: Less than \$10,000; \$10,000 to \$15,000; \$15,000 to \$25,000; \$25,000 to \$35,000; \$35,000 to \$50,000; \$50,000 to \$75,000; \$75,000 to \$100,000; \$100,000 to \$150,000; \$150,000 to \$200,000; \$200,000 or more.</p>			

Questions 20 through 25 were common demographic questions, to help assess the populations using the trails. The response options are based on typical cut points used by the U.S. Census Bureau for income reporting.



Regionally, the leading income categories reported by trail users were in the \$50,000 to \$150,000 range. More than half of all responses were in this range (57.2 percent). Among the specific counties, only Darke and Warren had response rates below 50 percent for these three categories combined. In both of those cases, the range of \$35,000 to \$100,000 held greater than 50 percent of the responses.

A complete breakdown of the data, by Survey Location and by Home Location, is included in the Appendices. The table below lists median HOUSEHOLD income for the seven survey counties according to the 2016 American Community Survey 1-Year Average. On a county-by-county basis it also presents the percentage of respondents (by Survey Location) who selected income categories below, at, and above the median income for that county. The data indicate that in six of the seven counties, 60 percent or more of trail users are at or above the county median income. The exception is Warren County, which has the highest median income of the counties.

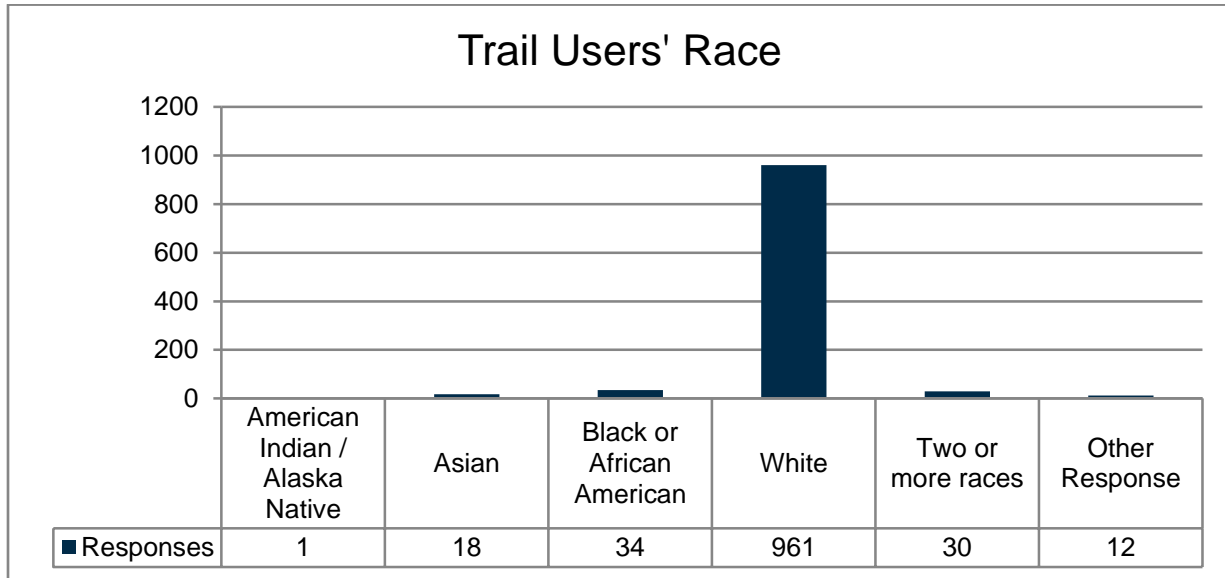
<b>Geography</b>	<b>Median HOUSEHOLD Income</b>	<b>% Below Median Category</b>	<b>% At Median Category</b>	<b>% Above Median Category</b>
Champaign	\$57,272	26.5%	30.6%	42.9%
Clark	\$46,811	8.6%	14.3%	77.1%
Darke	\$54,717	40.0%	11.4%	48.6%
Greene	\$62,018	26.3%	14.3%	59.4%
Miami	\$60,170	22.2%	12.5%	65.3%
Montgomery	\$46,936	11.3%	13.5%	75.2%
Warren	\$80,207	68.4%	15.8%	15.8%

<b>Question # 25</b>	<b>1,055 responses</b>	<b>90.2% response rate</b>	<b>New for 2017? Yes</b>
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Q. Please identify your race.

Response options: White; Black or African American; American Indian / Alaska Native; Asian; Native Hawaiian / other Pacific Islander; Two or more races.

Questions 20 through 25 were common demographic questions, to help assess the populations using the trails. The response options are based on summary categories used by the U.S. Census Bureau for race reporting.



The survey responses indicate that trail users are overwhelmingly white (91.0 percent). The populations of the seven survey counties combined are 82.9 percent white, indicating that trail users are less diverse than the general population of the counties. The following table provides the percent population for the seven counties by race based on the 2015 American Community Survey 5-year estimate.

County	% White	% Black/AA	% Asian	% AI/AN	% NH/PI	% 2 or more
Champaign County, Ohio	94.4%	1.9%	0.4%	0.1%	0.0%	2.7%
Clark County, Ohio	86.2%	8.5%	0.7%	0.2%	0.1%	3.1%
Darke County, Ohio	97.6%	0.6%	0.3%	0.2%	0.0%	1.0%
Greene County, Ohio	86.1%	7.2%	3.0%	0.1%	0.0%	3.1%
Miami County, Ohio	94.4%	2.2%	1.3%	0.1%	0.0%	1.8%
Montgomery County, Ohio	73.7%	20.7%	2.0%	0.2%	0.0%	2.7%
Warren County, Ohio	89.7%	3.5%	4.5%	0.1%	0.0%	1.6%
<b>Combined</b>	<b>82.9%</b>	<b>11.6%</b>	<b>2.2%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>2.5%</b>

County-by-County response information for this question is provided in the Appendices of this report. On a county-by-county basis, only Greene and Darke Counties' trail users roughly approximate the diversity of the county's general population. Clark and Montgomery, the region's two most urbanized counties, had much higher white percentage among trail users than among the general population.

The trail managing agencies were unsure whether to add this question about race to the survey, feeling it may be a sensitive issue. However, it turned out that the response rate was quite high for this question, 90.2 percent. The income question turned out to be an answer that fewer respondents were willing to share, with only 78.8 percent providing an answer.

## ECONOMIC IMPACT ANALYSIS

Using a methodology developed by the Rails-to-Trails Conservancy the findings from all three trail user surveys have been assessed to measure direct economic impact from purchases of hard goods, soft goods and overnight stays. The 2017 analysis shows very similar results compared to prior years. This is not surprising because the survey results have been so similar. Hard goods are defined as purchases of goods that are used and depreciate over an extended period of time. Hard goods include bicycles, jogging strollers, running shoes and clothing, auto accessories (such as bike racks) and the like. Soft goods, in contrast, are purchased and consumed at once, typically foods, beverages and snack foods. The assessment of overnight accommodations attempts to measure the hotel/bed-and-breakfast or campground revenue from trail-related tourism.

Questions 7, 17, 18 and 19 each provided information that factors into the economic impact analysis. From these questions the following information was determined:

	Data Source (Question)	Data Analysis	Result
Hard Goods % Usage	17	1 – (percent of “Nothing” response)	71.2 %
Hard Goods Average Spending	17	Average of responses greater than zero	\$507
Average number of trips per trail user per year	7	Calculation of overall average based upon weighted frequency responses (assumes seasonal use, i.e. less use in Winter)	8.7
Soft Goods % Usage	18	1 – (percent with no response)	48.3%
Soft Goods Average Spending	18	Average of responses greater than zero	\$13.07
Overnight Accommodations % Usage	19	Percent of all responses that indicated an overnight stay.	9.8%
Average cost of accommodations per night	19	Average of responses greater than zero	\$108
Average number of nights	19	Average of responses between 1 and 99	3.1
Unique Trail Users	7	The range of annual trail visits (from agency counts/estimate) divided by average number of trips per trail user per year.	77,000 to 104,000

The estimate of total trails network visits is, admittedly, a complicated guess. The first step in the estimate was to total the trail uses counted during the 2017 survey project at all of the survey locations. This number 8,868 was factored up based on day of week, number of weeks in the month, and the September monthly factor. All of these factors were found in the MVRPC Bicycle Counting Program



summary report. To that total was added annual counts for sections of trail that were not included in the 2017 Survey Project. The total came to 793,000 total annual visits.

It is understood that adding traffic counts together is not best practice. This is particularly the case because the trails are connected. Were they all separate, disconnected trails, adding the counts would be more defensible. But as a connected network, adding counts risks double counting longer distance trail users. We know from the first two questions of the survey that 64 percent of survey takers took the survey in their home county. It may be possible to assess the prevalence of multi-county trail visits based on length of use, access point, and mode of use data, but that has not been done for this assessment.

Lacking another method, this additive approach was done to provide a number that reflects the full Miami Valley Trails system. For purposes of the economic impact analysis, the total trail visits factor was used as well as figures 15 percent higher and 15 percent lower than the 793,000 number. This results in a range figure for the total direct economic impact of the trails.

The tables below lay out the calculations.

Category	% Usage	Avg. \$	Avg. Life	# of Trips	Annual Visits 674,050	Annual Visits 793,000	Annual Visits 911,950
<b>Hard Goods</b>	71.16%	\$507.00	6 years	8.7	\$ 4,658,708	\$ 5,480,833	\$ 6,302,958
<b>Soft Goods</b>	48.31%	\$13.07			\$ 4,256,031	\$ 5,007,095	\$ 5,758,159
					\$ 8,914,739	\$ 10,487,928	\$ 12,061,117

Category	% Usage	Avg. \$	Avg. of Nights	Unique Trail Visitors 77,477	Unique Trail Visitors 91,149	Unique Trail Visitors 104,821
<b>Overnight Stays</b>	9.76%	\$108.00	3.1	\$2,531,664	\$2,978,428	\$3,425,193
<b>Grand Total</b>				<b>\$11,446,403</b>	<b>\$13,466,356</b>	<b>\$15,486,310</b>

Summing the two figures together we find a range of between \$11.4 million and \$15.4 million in direct economic impact from the Miami Valley Trails.