Miami Valley Trail User Survey Report
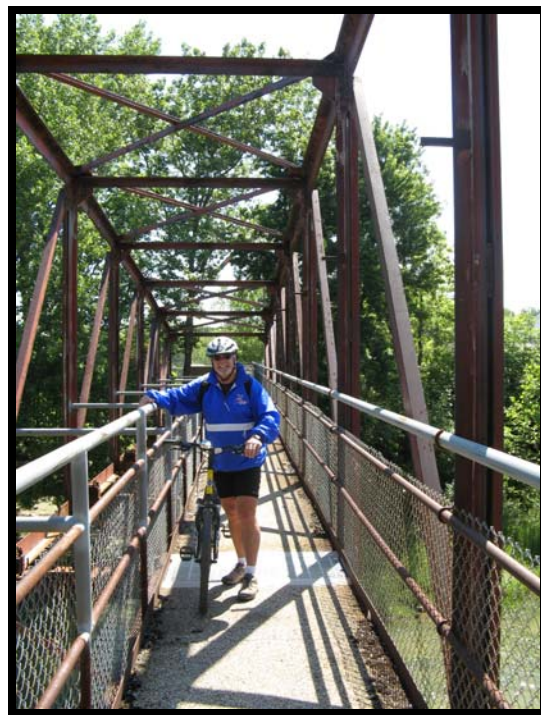
December 9, 2009

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Summary

This report documents the first region-wide effort to count and survey the users of the recreational trails throughout the Miami Valley. The trail count project is intended as the start of an ongoing program for regional partners to share resources, volunteers, information, and encouragement to evaluate trail usage patterns in the region. Some key findings from the survey include:

- Across the Region there were 10,909 trail users counted on Sunday, July 26th, and 4,431 trail users counted on two Wednesdays, July 29th and August 12th. 11% filled out surveys.
- Trail use is bike-dominated. Even some of the walkers and runners refer to them as "bike trails." On the weekend, over two thirds of counted trail users were on bikes; this was slightly lower on the weekday counts. Over three-quarters of survey respondents included "biking" as one of their primary activities on the trail.
- Use of mobility assistance devices is low. The trail count tally form specifically called for counting disabled users in the "ADA" category. Across all three counties only 21 such users were counted.
- Trail users tend to be male (~ 60%), between the ages of 36 and 65 (~66%) and frequent users of the trail. Over 65% of survey respondents indicated they use the trail "1 or 2 times per week" or more often.

Following a methodology developed by the Rails-To-Trails Conservancy and The Richard Stockton College of New Jersey, the trail user survey estimates the economic impact of the trails for the Miami Valley. The methodology looks at the purchases of "hard goods," "soft goods" and overnight accommodations separately. Using the methodology, the survey indicates the following economic benefits from the trails system:

- Hard Goods: Purchases of athletic equipment, clothing, shoes and other such goods related to trail use total between $6.4 million and $7.1 million on an annual basis.
- Soft Goods: Food, beverage, and snack purchases related to trail usage total between $5.5 million and $7.1 million on an annual basis.
- Overnight accommodations for trail users from outside the region total between $1.6 million and $1.8 million on an annual basis.

MVRPC and the trail managing agencies in the region believe the benefits of performing the user counts and surveys will increase with each succeeding effort. The data gathered will support improved trail design, targeted maintenance efforts, trail-based programming and assist with grant writing efforts.

Since this was the first year of counting, there were some valuable lessons to apply to the program in the coming years, including:

- Ensure complete uniformity in survey forms
- Have fewer and more spread out survey and count locations
- Begin to arrange for volunteer survey takers earlier
- Encourage trail programming in line with user preferences and targeting under-counted user groups (ADA and children)

Background

An annual count program was recommended in the Comprehensive Local-Regional Bikeway Plan (CLRBP) approved by the MVRPC Board of Directors in December 2008. The high-priority program elements from Chapter 6 included a recommendation that MVRPC perform "annual bicycle user counts and surveys at set locations to provide for evaluation over time." The plan suggests that MVRPC take the lead role in standardizing a regional approach to counts and surveys, and handle tracking and reporting. In this way, the region can track ridership trends over time, and evaluate the impact of new projects and policies.

Trail user surveys represent a first step in fulfilling the intent of the CLRBP recommendation. Over time, as more and more on-street bicycle facilities are built in the Miami Valley, a regular program of roadway bicycle counts would provide regional and local decision makers valuable information about the usage of these facilities - and the potential value of additional facilities.

Trails

The Miami Valley is home to over 200 miles of connected multi-use trails, following two major river corridors and several former railroad corridors. Built over the past 40 years, these trails are the ongoing responsibility of numerous agencies (mostly park-management agencies) across the three counties covered in this year's project.

There were 15 counting sites over three counties on most of the major, connected trail segments. The maps in the Analysis section show the location of volunteer counters. The trails included were:

Great Miami River Recreation Trail (7 count locations)
  French Park, Piqua
  Lock 9, Piqua
  Dye Mill Road, Concord Township
  Miami Shores, Troy
  Canal Lock Park, Tipp City
  Tadmore Parking Lot, Vandalia
  Riverscape, Dayton

Little Miami Scenic Trail (3 count locations)
  Train Station, Yellow Springs
  Old Town, Xenia
  Xenia Station, Xenia

Iron Horse Trail (2 count locations)
  Iron Horse Park Parking Lot, Centerville
  Whipp Road (north and south of the trail crossing), Centerville

Creekside Trail (2 shared locations, 1 other location)
  Xenia Station, Xenia (shared)
  Factory Road, Beavercreek
  Eastwood MetroPark, Riverside (shared)

Mad River Trail (one count location)
  Eastwood MetroPark, Riverside

Wolf Creek Trail (1 count location)
        Shiloh Springs and Diamond Mill Roads, Trotwood

Ohio To Erie Trail (1 count location)
        Cedarville Library, Cedarville

The trail network has been built out over time, with the sections in downtown Dayton and along the Little Miami Scenic Trail having the oldest infrastructure. The trail conditions can vary from area to area in the region. All of the trails are classified as "shared use paths," meaning that they are designed and open to many types of users: pedestrians, bicyclists, and users of mobility devices (e.g. powered chairs). All of the trails forbid the use of motorized vehicles; only Greene County allows horseback riding on their trails. The amount of connectivity is highest in the Greene County trails, moderate in the Montgomery County network, and lowest in Miami County where significant gaps in the Great Miami River Trail remain yet to be constructed.

Partnerships

Several agencies came together under the umbrella of the MVRPC Regional Bikeways Committee to plan and implement this count. Each agency is an owner and manager of a portion of the trail system, and was asked to provide their own volunteers to implement the count and surveys. MVRPC's partners were:
        Centerville-Washington Park District
        Five Rivers MetroParks
        Greene County Parks and Recreation Department
        Miami County Park District
        City of Piqua
        City of Tipp City
        City of Troy
        Miami Conservancy District

Process

The count and survey process and forms closely followed a methodology published by the Rails-To-Trails Conservancy.[1] Over the course of three meetings the participating agencies were provided with opportunities for input on the count methodology, the specific survey questions, and the locations of volunteer/counting sites. The volunteers were recruited by individual agencies but all given the same training write-up provided by MVRPC staff. The "Regional Trail Survey and County Project Training Guide" is included (Attachment A) at the end of this document.

The partner agencies decided to hold the count and survey on a Sunday and a Wednesday in July to determine typical weekend and mid-week usage. As it turned out, several of the agencies had trouble finding enough volunteers and had to combine forces and/or reduce the number of counting sites that were manned. The Sunday count took place on July 26, 2009 from 6:00 am until 9:00 pm. The weather did not cooperate for some of the locations on the chosen Wednesday; the trail partners determined individually when to use rain days. As a result, there were mid-week counts

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[1] 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, http://www.railstotrails.org/resources/documents/resource_docs/UserSurveyMethodology.pdf .

from two different Wednesdays, July 29 and August 12, 2009 (though no count location was counted on both Wednesdays).

Volunteers were stationed at the count locations in pairs, working 2.5 to 3 hour shifts running from 6:30 am until 9:00 pm. The trails are open during daylight hours, so the 14.5 hour day was needed. Several locations did close early, around 6 pm, on the rainy Wednesday (July 29). Blank samples of the Tally form and the Survey form are attached (Attachments B, C). Volunteers made continuous counts of all trail users as they passed the count location and made the survey forms available to users who wished to fill out a survey. Trail users had the option of taking the survey and mailing it directly to MVRPC, but the overwhelming majority of completed surveys were left with the volunteers.

The count tallies and surveys were collected by MVRPC staff and entered into a database for analysis. In total 1,754 surveys were collected from trail users on the two days of the project. In total 15,340 trail users were counted, resulting in an 11% survey rate. It should be noted that trail users may have been counted more than once if they passed more than one count site, and therefore the survey rate may be higher than 11%.

Count data indicates that no particular county was "over-surveyed." Survey rates ranged from 10.2 percent in Miami County to 12.0 percent in Montgomery County. These consistent figures assure that survey responses are not skewed by responses in any one particular county. The table below provides the specific numbers for each county.

	User Count	Survey Count	Percent Surveyed
GRE	7549	888	11.8%
MIA	3882	397	10.2%
MOT	3909	469	12.0%
REG	15340	1754	11.4%

Analysis

Findings: Count

The following table shows the trail count by Trail and Date. The Great Miami River Trail (GMRT) and Little Miami Scenic Trail (LMST) are the two most frequently used trails and also the two longest trails in the area. In this table, the Dogs counted on the trails are moved into the last column and not included as independent Trail Users. Of the total users, 10,909 were counted on Sunday, which was a sunny day across most of the region. 4,431 users were counted on Wednesday. In general there were more than twice as many cyclists as walkers/joggers on the weekend, and a smaller difference in user types on the weekdays. Very few ADA users were counted, and no one was counted on Horseback, so the column was dropped from the tables.

For the count totals by County and by trail, we have the following table.

County	Trail	SumOfADA	Sum Of Walk/Run	Sum Of Bike	Sum Of Skate/Blade
GRE	Creekside		546	1654	57
GRE	LMST	4	1386	3610	59
GRE	O2E	1	50	182	
MIA	GMRT	13	1078	2721	70
MOT	GMRT	2	1187	781	4
MOT	Iron Horse	1	424	451	25
MOT	Mad River/Creekside		227	577	9
MOT	Wolf Creek		39	182	

The totals by trail and by day are shown:

| Trail	Date	Sum Of ADA	Sum Of Walk/Run	Sum Of Bike	Sum Of Skate/ Blade	**Sum Of Trail Users**	Sum Of Dog
Creekside	Sunday, July 26, 2009		369	1225	43	**1637**	32
Creekside	Wednesday, August 12, 2009		177	429	14	**620**	34
GMRT	Sunday, July 26, 2009	11	1493	2885	57	**4446**	169
GMRT	Wednesday, July 29, 2009	4	772	617	17	**1410**	78
Iron Horse	Sunday, July 26, 2009	1	182	208	2	**393**	45
Iron Horse	Wednesday, August 12, 2009		242	243	23	**508**	42
LMST	Sunday, July 26, 2009	1	840	2487	36	**3364**	81
LMST	Wednesday, August 12, 2009	3	546	1123	23	**1695**	64
Mad River/Creekside	Sunday, July 26, 2009		172	478	9	**659**	14
Mad River/Creekside	Wednesday, July 29, 2009		55	99		**154**	
O2E	Sunday, July 26, 2009	1	50	182		**233**	8
Wolf Creek	Sunday, July 26, 2009		20	157		**177**	6
Wolf Creek	Wednesday, July 29, 2009		19	25		**44**	7
Totals		**21**	**4937**	**10158**	**224**	**15340**	**580**

Additional breakdown of the data by count location shows some of the most popular locations for certain activities.

- The top numbers of ADA users were counted at French Park on Sunday and Lock 9 Park on Wednesday.
- The most Walkers & Runners were counted at the Yellow Springs Train Station and Riverscape on Sunday and at Yellow Springs Train Station and Whipp Road North on Wednesday.
- Cyclists were most populous at Factory Road and Old Town on Sunday, and at Xenia Station and Factory Road on Wednesday.
- Skaters and Bladers were found in the largest numbers at Factory Road and French Park on Sunday and at Yellow Springs Train Station and Whipp Road North on Wednesday.
- The most dogs were walked at Tadmore and Whipp Road South on Sunday, and Factory Road and Yellow Springs Train Station on Wednesday.

The 'Other Users' were few and far between. At Tadmore on Sunday, 1 deer and 1 ranger car were reported in the "Other" category. At Riverscape on Sunday, 6 kayaks were counted and 1 park ATV. On Wednesday at Riverscape, a track team of 18 people was counted in the Other category rather than the walk/run category. 2 Bus loads of school kids were similarly counted at Xenia Station. Also, 7 visitors to Xenia "Station only" (not using the trail) were reported and 1 motorized scooter, which may belong in the ADA category. In Centerville at Iron Horse Park, 5 construction trucks and 2 landscape trucks were reported.

The count times show varied patterns across the region; it does not seem to show a trend of use dependent on time of day.

MIAMI Wednesday Count

GREENE Wednesday Count

MONTGOMERY Wednesday Count
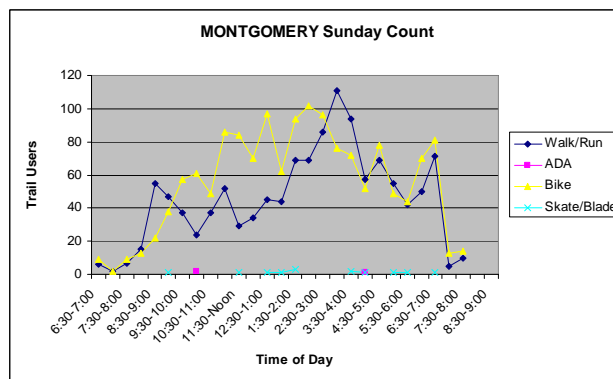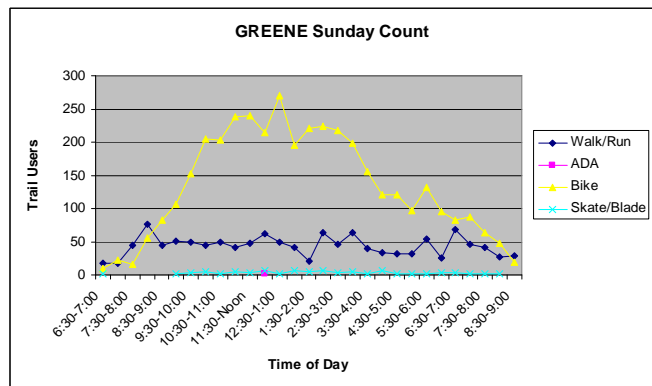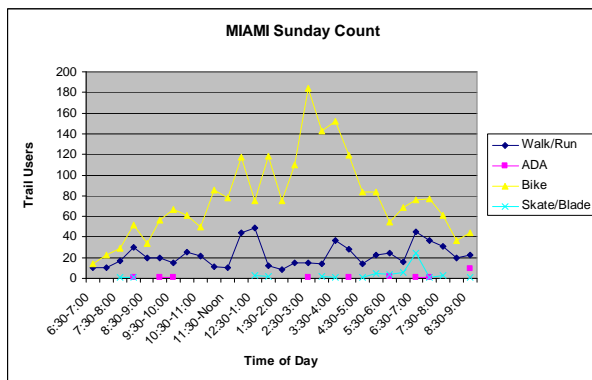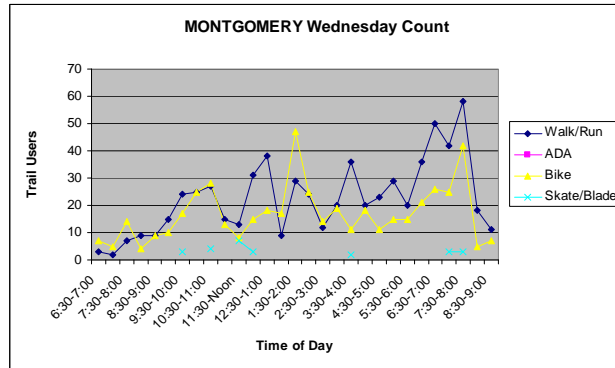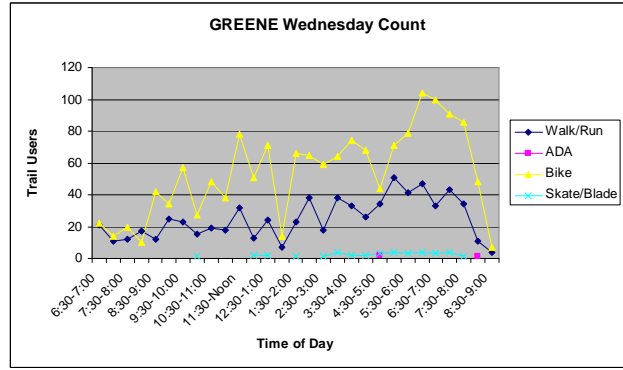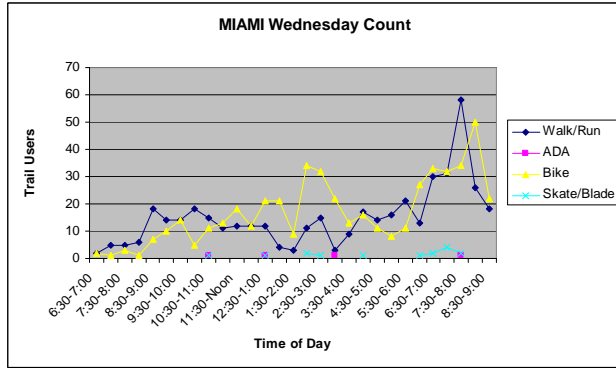
The following maps show the relative volume of users counted by location.

Trail Volume Counts: Sunday

Total Users Counted

- Walkers
- Bikers
- Others
- Existing Trails
- Proposed Trails
- County
- Streets
- 580 Size of symbol reflects total counted at location

Miami Valley
Regional Planning Commission
One Dayton Centre
One South Main Street Suite 260
Dayton, OH 45402
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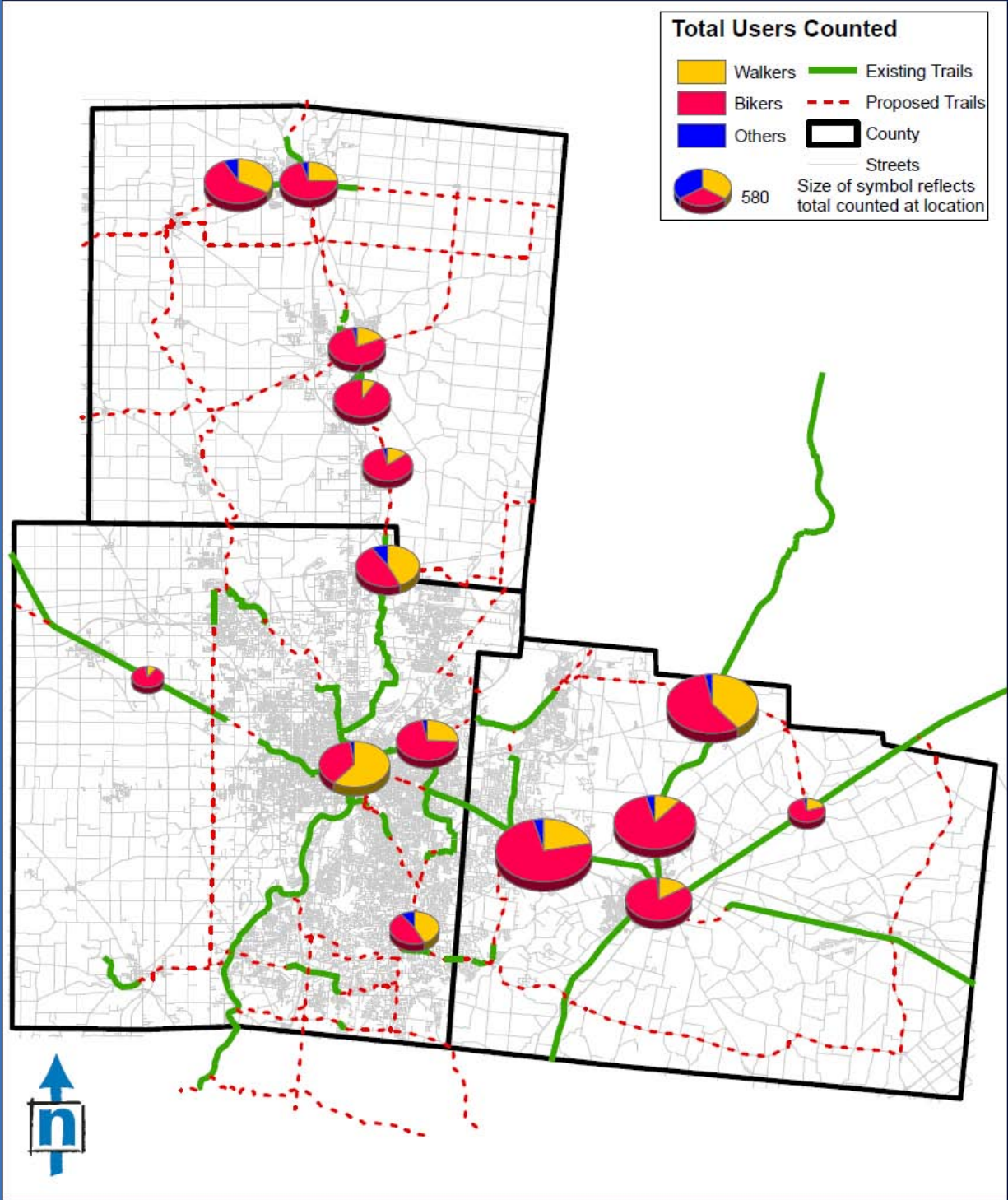
Trail Volume Counts: Wednesday

Total Users Counted

- Walkers
- Bikers
- Others
- Existing Trails
- Proposed Trails
- County
- Streets

330   Size of symbol reflects total counted at location
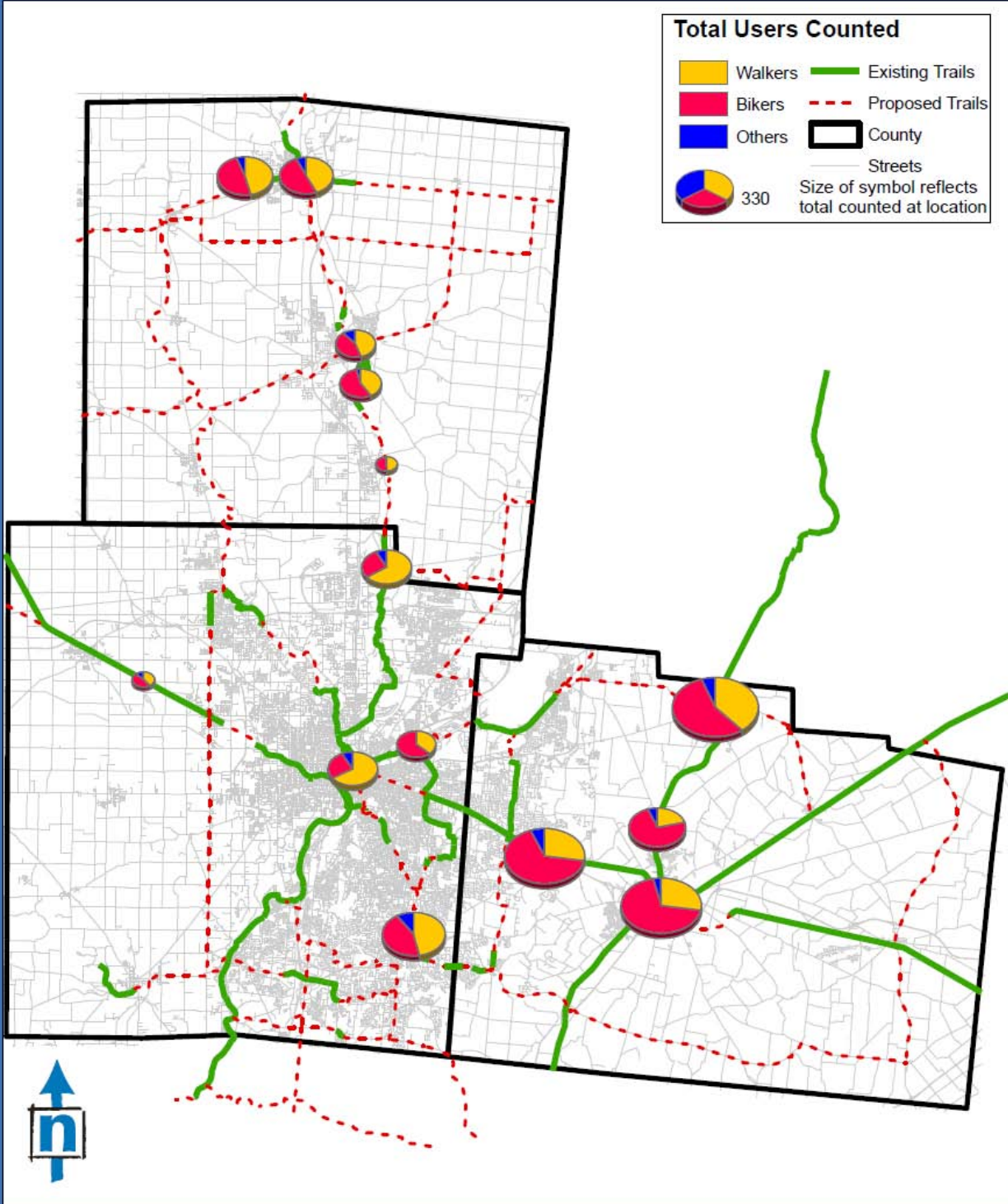
Findings: Survey

Question 1: What is your zip code?
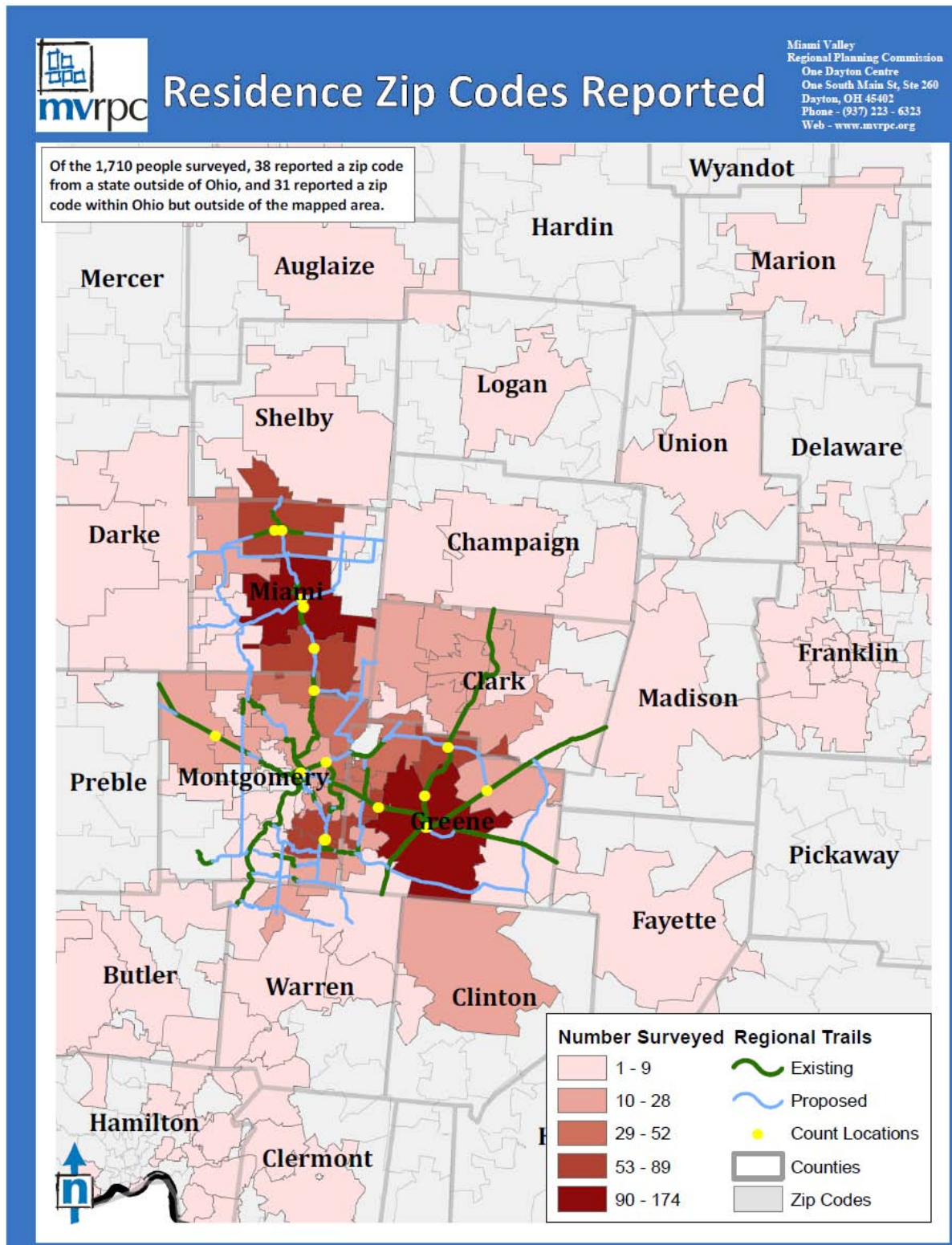
Question 2/5: What is your gender? (Circle your response) Male   Female

Total Responses by County, Region

	GRE	MIA	MOT	REG
■ Female	328	166	159	653
■ Male	552	225	300	1077

Percent Responses by County, Region

	GRE	MIA	MOT	REG
■ % Male	62.2%	56.7%	64.0%	62.3%
□ % Female	37.0%	41.8%	33.9%	37.7%
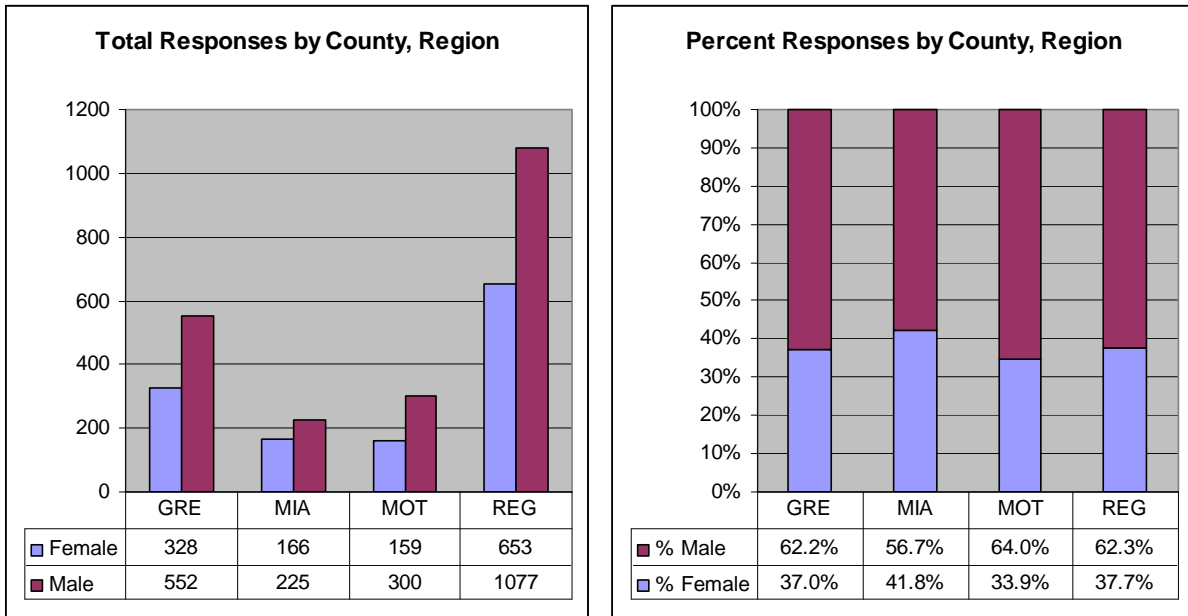
Description
Trail User Survey respondents were predominantly male. Region-wide, 62 percent of respondents were male and this pattern was found in each county. County-specific percentages do not total 100 percent because some respondents skipped the question.

Partner Agency Comments & Insights
- It is reasonable to conclude that a majority of trail users are male. However, this data was not paired with count data by gender; the tallies did not collect gender information. Therefore, there is no way to determine if female trail users' reluctance to complete the surveys biases these figures, or to what extent.

Question 3: Please identify your age group. (Circle one response)

15 and under	16 to 25
26-35	36-45
46-55	56-65
66 or older	

Age Groups by County, Region

	GRE	MIA	MOT	REG
□ 15 and under	6	12	13	31
■ 16 to 25	70	23	24	117
□ 26-35	90	40	46	176
□ 36-45	122	62	81	265
■ 46-55	253	113	135	501
■ 56-65	242	100	115	457
■ 66 or older	99	44	52	195

Age Group Percent by County, Region

	GRE	MIA	MOT	REG
■ 66 or older	11.2%	11.1%	11.1%	11.2%
■ 56-65	27.3%	25.2%	24.5%	26.2%
■ 46-55	28.5%	28.5%	28.8%	28.8%
□ 36-45	13.8%	15.6%	17.3%	15.2%
□ 26-35	10.1%	10.1%	9.8%	10.1%
■ 16 to 25	7.9%	5.8%	5.1%	6.7%
□ 15 and under	0.7%	3.0%	2.8%	1.8%

Description

The age group distribution for survey respondents shows a consistent pattern across the region.
The largest groups are (in order) 46-55, 56-65 and 36-45, in all three counties and for the region.
These groups represent 70 percent of trail user survey respondents across the region.

Partner Agency Comments & Insights
- The low numbers of young trail users confirms observations of some trail managing staff.
  Kids are not frequent users of the trails.

Question 4: Were there any children under the age of 15 with you on your trail experience today?
Yes   No

Trail Users Accompanied by Children

	GRE	MIA	MOT	REG
% Yes	8.5%	14.4%	15.1%	11.6%
No	812	340	398	1550
Yes	75	57	71	203
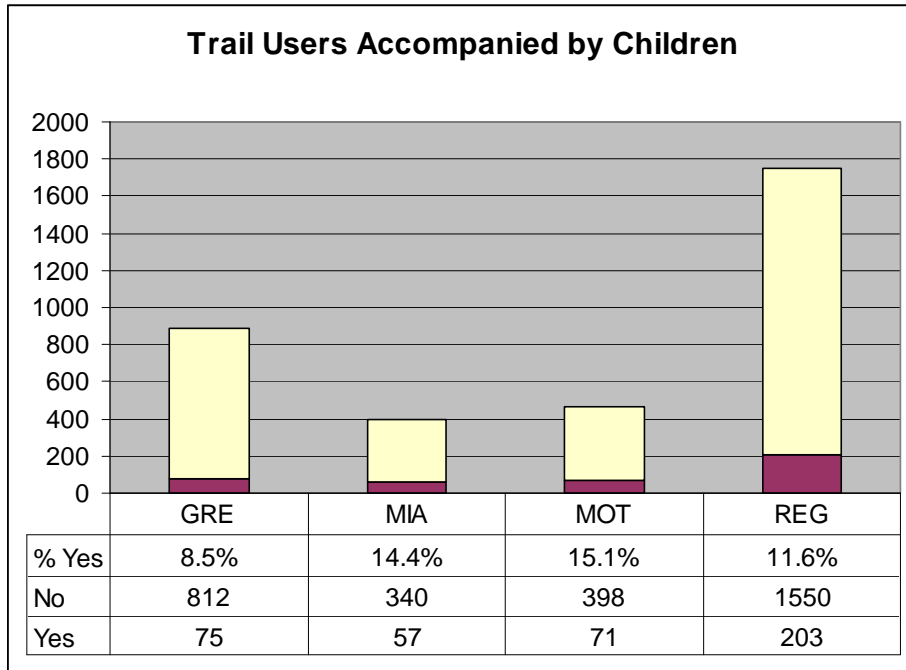
Description
Similar to other questions, this question is showing a consistent regional response. Roughly 1 in 6 to 1 in 11 trail visitors are accompanied by a child under the age of 15 – a clear minority of trail user survey respondents.

Partner Agency Comments & Insights
- There are more dogs walked (580) than the total parents who had children with them during these trail counts.
- Current trends favoring organized team sports may disincline children from trail use or not leave time in busy schedules for trail use. These low numbers present a programming opportunity and challenge for trail managing agencies.

Question 5/2: How often, on average, do you use the trail? (Circle one response)
Daily
Between 3 and 5 times a week
1 or 2 times a week
Once a week
A couple of times a month
Once a month
A few times a year
First time

User Frequency By County, Region

	GRE	MIA	MOT	REG
☐ Daily	83	60	62	205
■ Between 3 and 5 times a week	296	124	152	572
☐ 1 or 2 times a week	194	65	100	359
☐ Once a week	72	36	36	144
■ A couple of times a month	80	50	63	193
☐ Once a month	25	12	7	44
■ A few times a year	78	20	21	119
☐ First time	51	27	23	101

User Frequency Percentages by County, Region

	GRE	MIA	MOT	REG
☐ First time	5.7%	6.8%	4.9%	5.8%
■ A few times a year	8.8%	5.0%	4.5%	6.8%
☐ Once a month	2.8%	3.0%	1.5%	2.5%
■ A couple of times a month	9.0%	12.6%	13.4%	11.0%
☐ Once a week	8.1%	9.1%	7.7%	8.2%
☐ 1 or 2 times a week	21.9%	16.4%	21.3%	20.5%
■ Between 3 and 5 times a week	33.4%	31.2%	32.4%	32.6%
☐ Daily	9.4%	15.1%	13.2%	11.7%

Description
User frequency represents another measure which holds a regional pattern for trail users. In all counties and for the region the three responses indicating the greatest frequency of trail use represent over 60 percent of survey responses. In all cases the "Once a Month" response is the least selected, even lower than "First Time" users.

Partner Agency Comments & Insights
- The reported frequency of usage may actually only apply to the warm-weather months. Only a similar survey in Fall or Winter could measure the effect. If respondents were only thinking of their warm weather usage, then the survey data derived from this question would over-report total trail users.
- If this question and the next are compared, are there differences in frequency of use depending on mode? For example, are walkers/runners mostly daily users?

Question 6: What is your primary activity on the trail (Circle all that apply)
Walking/Hiking   Biking
Jogging/Running   Rollerblading
Walking pet   Horseback riding
XC skiing/Snowshoeing
Other activity (specify)

Primary Activities by County, Region

	GRE	MIA	MOT	REG
□ Other	9	7	9	25
■ Horseback Riding	7	0	3	10
■ Rollerblading	46	12	13	71
■ XC Ski/Snowshoe	4	2	2	8
□ Walking Pet	49	38	36	123
□ Jogging/Running	124	49	82	255
■ Walking/Hiking	183	152	172	507
■ Biking	736	290	322	1348
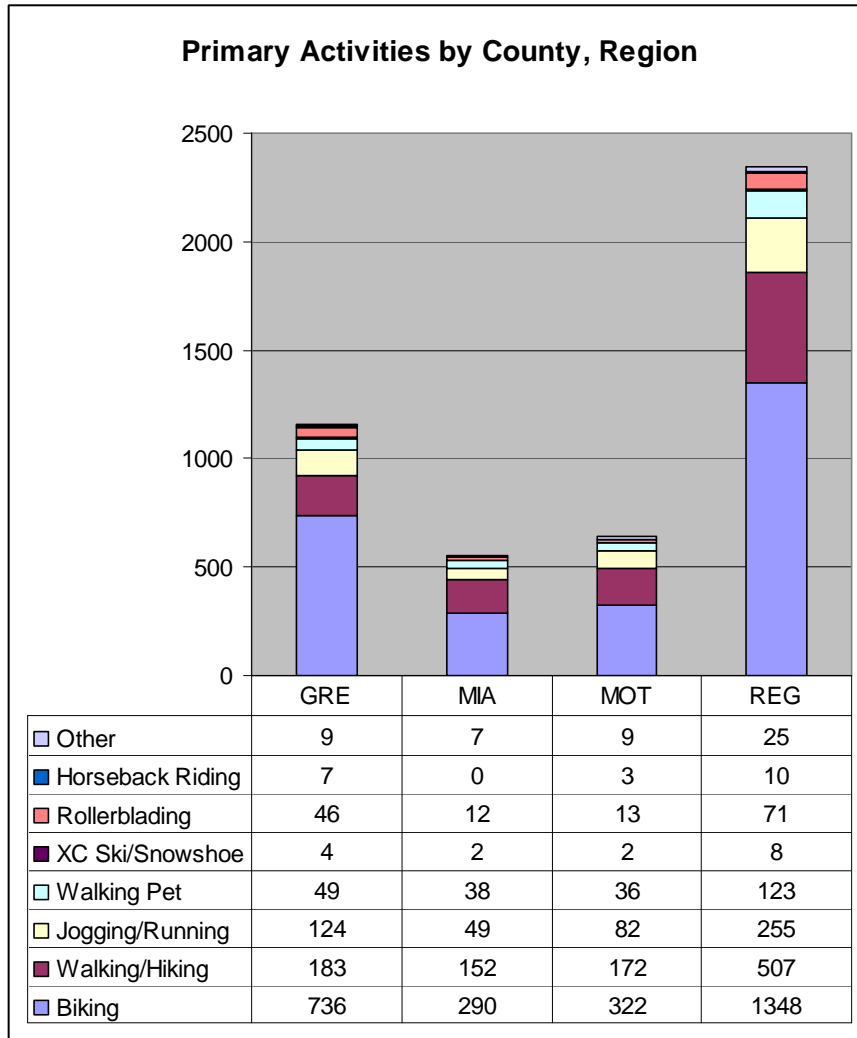
Description
A pattern of regional responses continues with the activity question. For this question, respondents could choose more than one response. For each county and for the region, the option of "biking" was selected on more surveys than all other selections combined. In Greene County, 736 out of 887 surveys (83 percent) indicated "biking."

Partner Agency Comments & Insights
- The shared use paths are commonly known as "bike trails" and this data indicates why that is so.

Question 7: Generally, when do you use the trail? (Circle one response)
Weekdays   Weekends   Both

Time of Use by County, Region

	GRE	MIA	MOT	REG
Both	566	282	326	1174
Weekdays	102	28	64	194
Weekends	203	82	73	358

Time of Use Percentage by County, Region

	GRE	MIA	MOT	REG
Weekends	22.9%	20.7%	15.6%	20.7%
Weekdays	11.5%	7.1%	13.6%	11.2%
Both	63.8%	71.0%	69.5%	68.0%
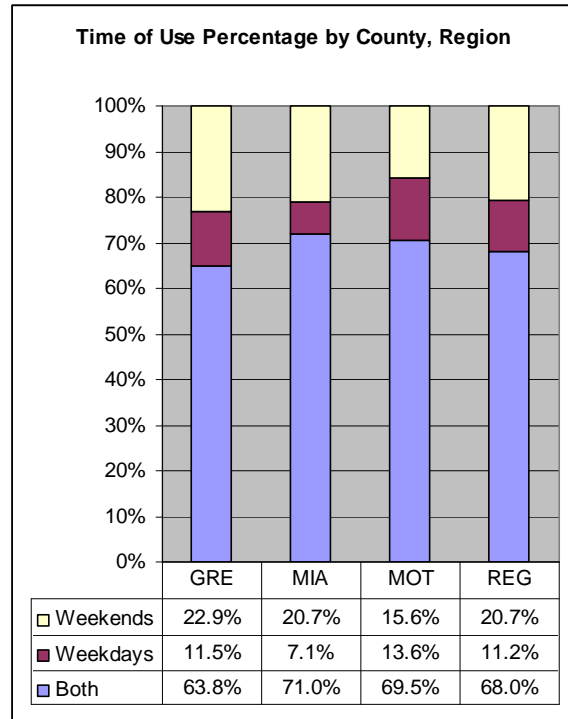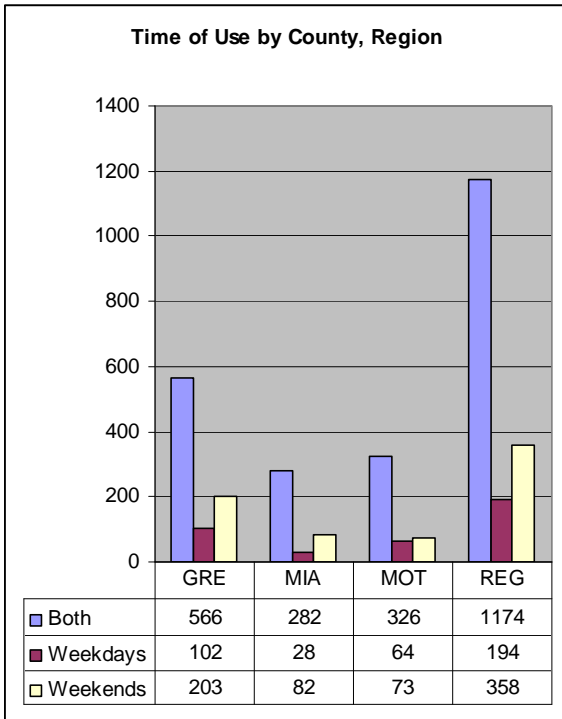
Description
This question also falls into the pattern of consistent responses across the region. In all three counties, the "Both" response represented over 60 percent of respondents. This is consistent with the responses to the frequency of use question, in which over 60 percent of users indicated they use the trails more than once a week.
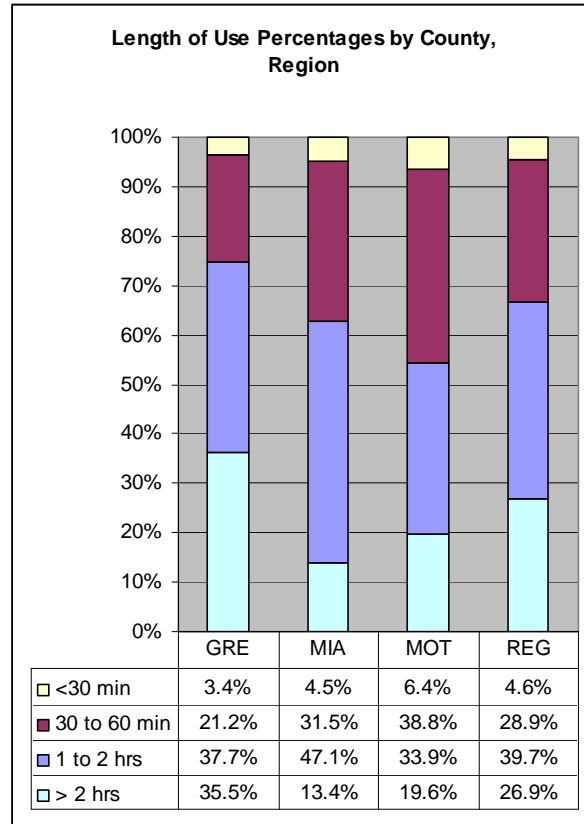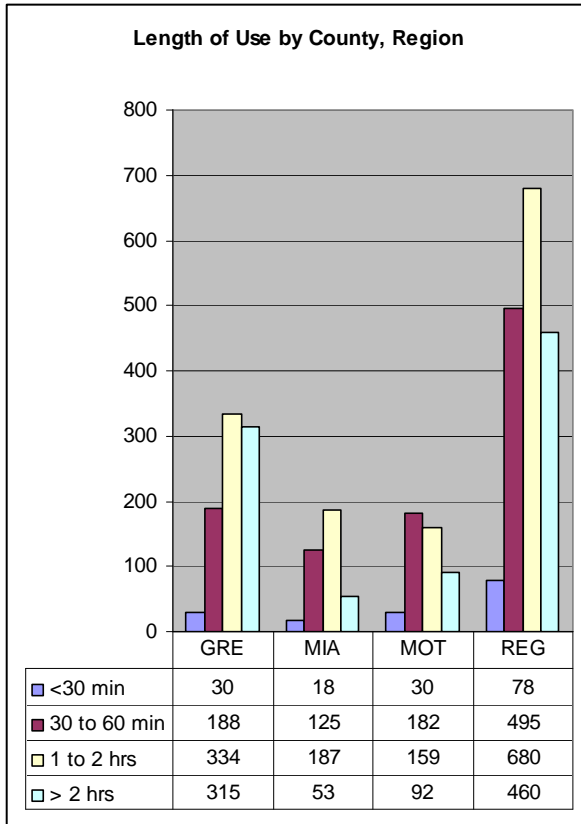
Partner Agency Comments & Insights

Question 8: How much time do you generally spend on the trail each visit? (Circle one response)
Less than 30 minutes
30 minutes to 1 hour
1 to 2 hours
More than 2 hours

Length of Use by County, Region

	GRE	MIA	MOT	REG
<30 min	30	18	30	78
30 to 60 min	188	125	182	495
1 to 2 hrs	334	187	159	680
> 2 hrs	315	53	92	460

Length of Use Percentages by County, Region

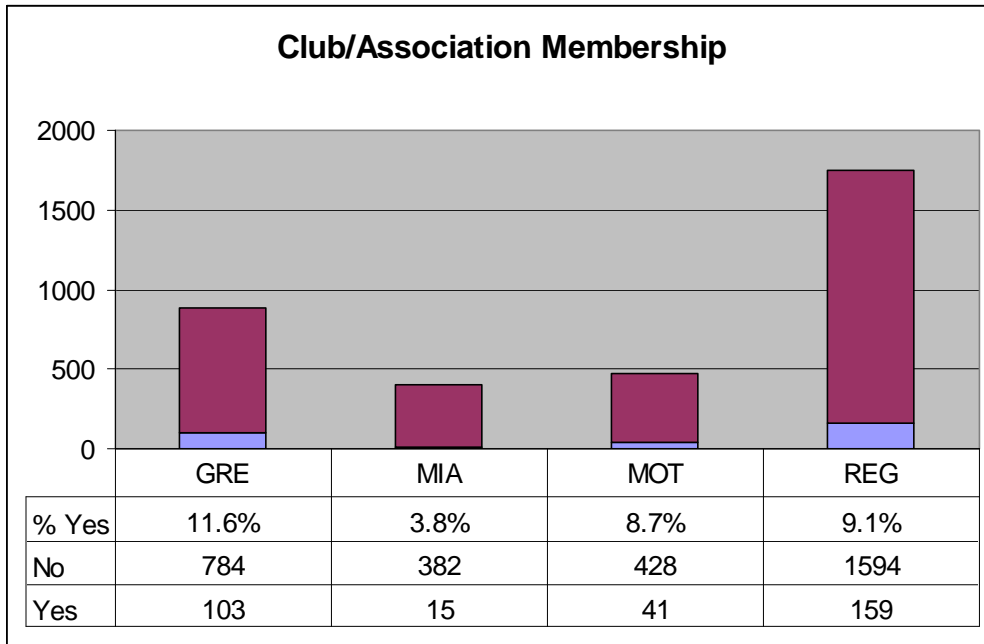|	GRE	MIA	MOT	REG
<30 min	3.4%	4.5%	6.4%	4.6%
30 to 60 min	21.2%	31.5%	38.8%	28.9%
1 to 2 hrs	37.7%	47.1%	33.9%	39.7%
> 2 hrs	35.5%	13.4%	19.6%	26.9%

Description
This question appears to have demonstrated a difference between the counties in the survey. Respondents in Greene County tend to favor longer visits to the trail with over 70 percent of respondents choosing the longest two answers, "1 to 2 hours" or "more than 2 hours." The shorter visit answers were most favored in Montgomery County, with over 50 percent of respondents choosing either "less than 30 minutes" or "30 minutes to 1 hour." Miami County was closest to the regional averages.

Partner Agency Comments & Insights
- Visit length responses seem to correlate with the length of the trail facilities and the degree of connectivity within the counties.

Question 9: Are you a member of a club/association that uses the trails?   Yes   No

Club/Association Membership

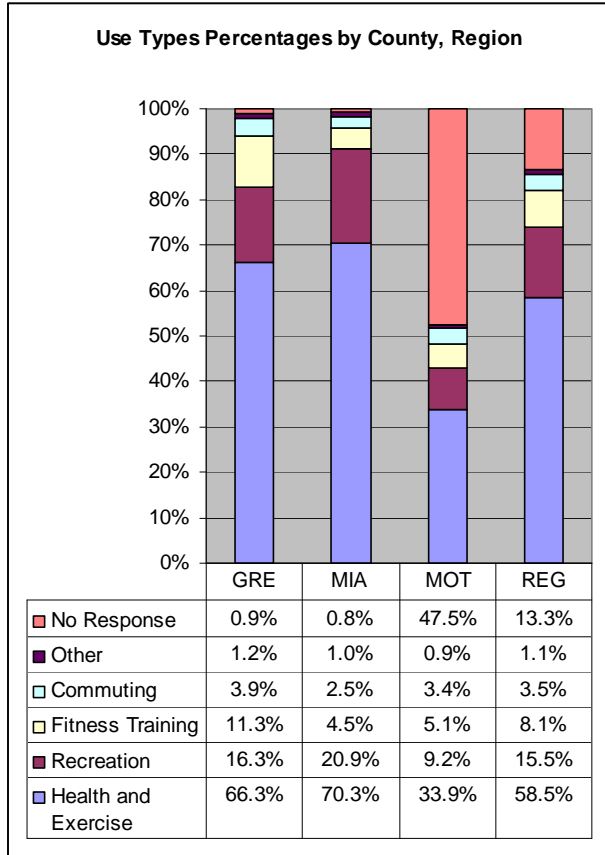|	GRE	MIA	MOT	REG
% Yes	11.6%	3.8%	8.7%	9.1%
No	784	382	428	1594
Yes	103	15	41	159

Description
Broadly speaking a regional pattern holds for responses: only a small minority of trail users reported being members of a club or association that uses the trails. However, it would appear that club membership is more common in Greene County than the other counties. Respondents indicating yes on this question were invited to provide the name of the club; a complete listing of the club name responses is provided in Appendix E. The most commonly provided club name was the Dayton Cycling Club.

Partner Agency Comments & Insights
- Outreach to non-cycling clubs (such as photography, birding and other outdoor clubs) may be warranted. Bicyclists are clearly well informed about the trails.

Question 10: Would you consider your use of the trail to be for… (Circle one response)
Recreation
Health and Exercise
Commuting
Fitness Training (marathon, triathlon)
Other

Use Types by County, Region

	GRE	MIA	MOT	REG
■ Health and Exercise	588	279	159	1026
■ Recreation	145	83	43	271
□ Fitness Training	100	18	24	142
□ Commuting	35	10	16	61
■ Other	11	4	4	19
■ No Response	8	3	223	234

Use Types Percentages by County, Region

|	GRE	MIA	MOT	REG
■ No Response	0.9%	0.8%	47.5%	13.3%
■ Other	1.2%	1.0%	0.9%	1.1%
□ Commuting	3.9%	2.5%	3.4%	3.5%
□ Fitness Training	11.3%	4.5%	5.1%	8.1%
■ Recreation	16.3%	20.9%	9.2%	15.5%
■ Health and Exercise	66.3%	70.3%	33.9%	58.5%

Description
A survey reproduction error in Montgomery County resulted in this question being missing from slightly under half of the surveys collected from Montgomery County. This accounts for the very high "No response" rate in that county. However, the responses received do follow a regional pattern; "health and exercise" was the response given by a large majority of survey takers. The remaining choices, in order of preference, were "recreation," "fitness training," and "commuting." The details of the "other" selections are available in Appendix E.

Partner Agency Comments & Insights
- Better on-street connections to the trails will be needed to raise the "commuting" use of the trails.

Question 11: If you use the trail for bicycling, do you <u>also</u> bike on streets and roads? Yes   No

Bicycling on Streets <u>and</u> Trails: % Yes

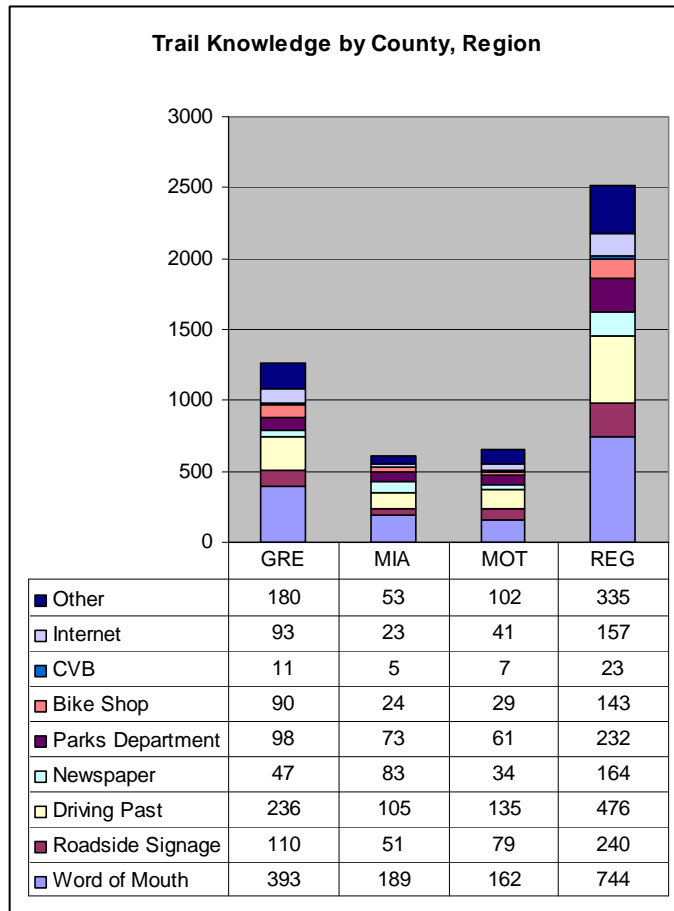|	GRE	MIA	MOT	REG
☐ % Yes	49.0%	50.9%	45.5%	48.9%
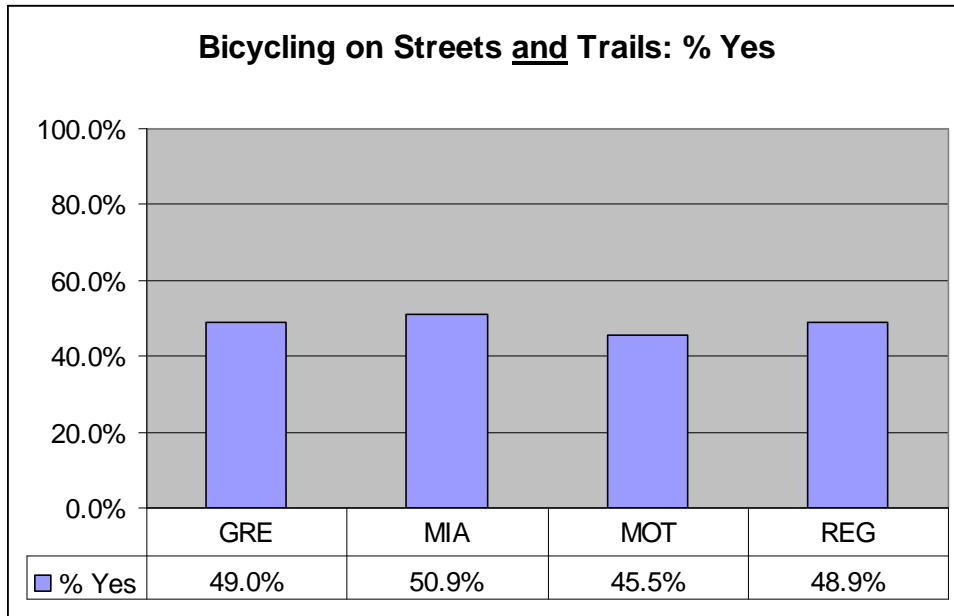
Description
Slightly under half of the surveys completed in Montgomery County did not include this question (223 out of 469). The percentages presented are for the number of "yes" responses compared to the number of surveys with the question included and where the respondent had indicated that they bike on the trails. A consistent regional pattern holds true with this question. Slightly under half of all respondents who bike on the trails also bike on streets and roads.

Partner Agency Comments & Insights
- Jurisdictions with trails should look to make roads and streets that feed to the trails more bicycle-friendly, to better serve this mode of transportation.

Question 12: How did you find out about the trail? (Circle all that apply)
Word of mouth
Roadside signage
Driving past
Newspaper
Parks Department
Bike shop
Convention and Visitors Bureau
Internet web site
Other

Trail Knowledge by County, Region

|	GRE	MIA	MOT	REG
Other	180	53	102	335
Internet	93	23	41	157
CVB	11	5	7	23
Bike Shop	90	24	29	143
Parks Department	98	73	61	232
Newspaper	47	83	34	164
Driving Past	236	105	135	476
Roadside Signage	110	51	79	240
Word of Mouth	393	189	162	744

Description
This question allowed respondents to choose more than one response. Across the region the more passive avenues for discovering the trail tend to dominate: "word of mouth" and "driving past." The details of the other selection are available in Appendix E. The most common responses for other were "live near the trail" and "have always known."

Partner Agency Comments & Insights

Question 13: Has your use of the trail influenced your purchase of (Circle all that apply):
Bike
Bike Supplies
Auto Accessories
Rollerblades
Footwear
Clothing
Nothing

Trail-Related Hard Good Purchases

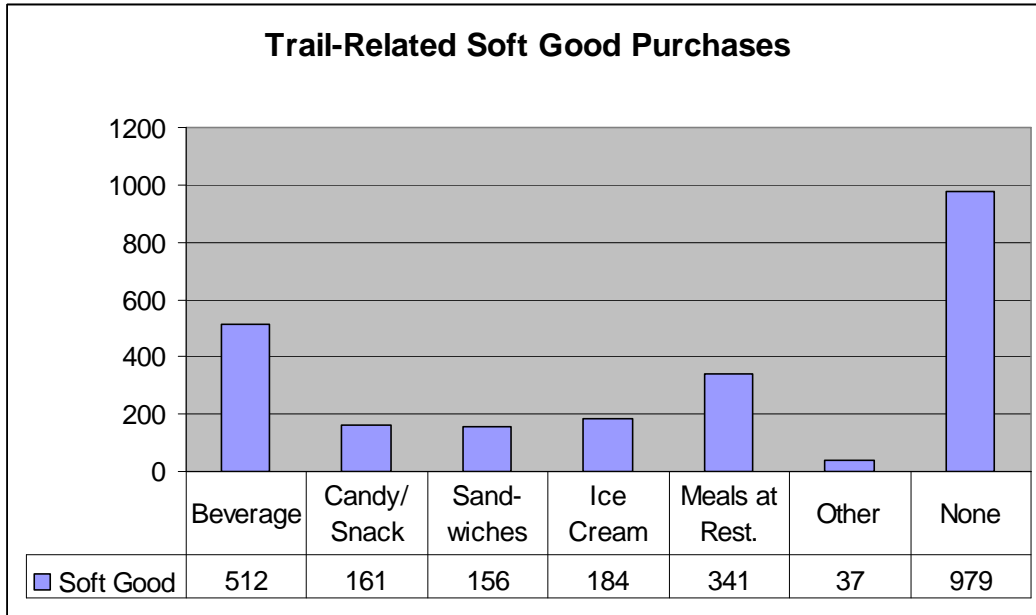|	Bike	Bike Supplies	Auto Acc.	Roller-blades	Footwear	Clothing	Nothing
Hard Good	828	721	92	97	372	413	476
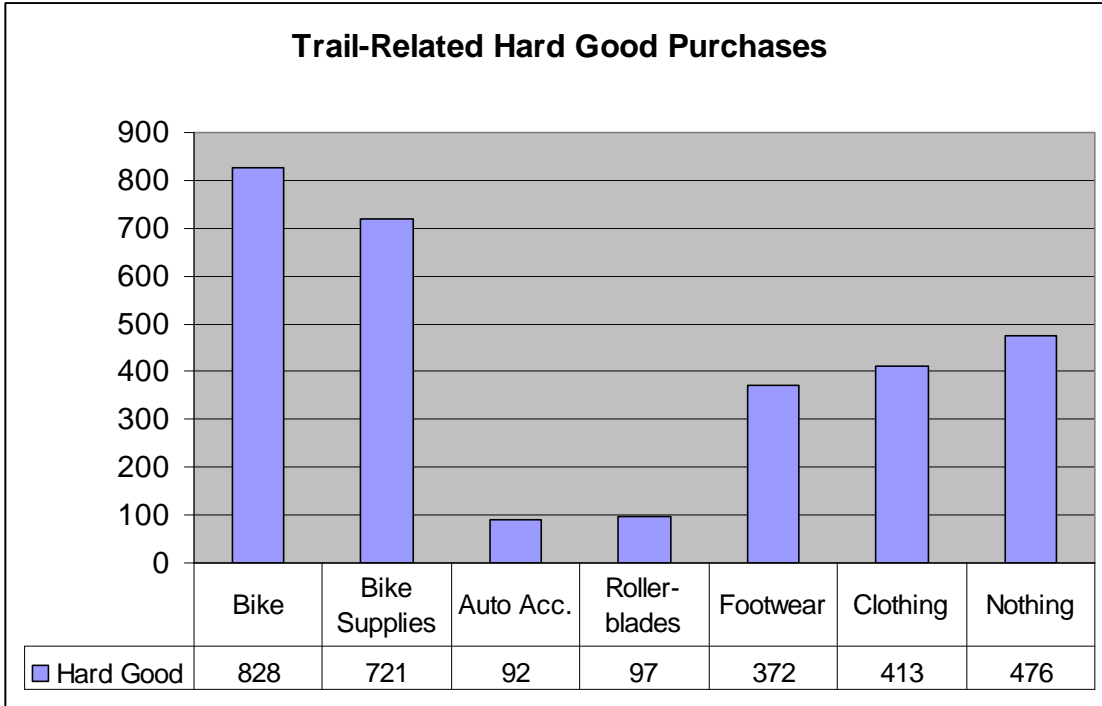
Description
This question allowed for each respondent to select more than one response. Bike-related purchases represented the majority of selections. Given 476 nothing responses, overall about 73 percent of survey respondents indicated at least one type of trail-influenced purchase.

Partner Agency Comments & Insights
- Question 13-A asked for an approximation of the amount spent in the last year on the indicated goods. The average of all responses was $515.71.

Question 14: In conjuction with your most recent trip to the trail, did you purchase any of the following? (Circle all that apply):
Beverages
Candy/Snack foods
Sandwiches
Ice Cream
Meals at a restaurant along the trail
Other
None of these

Trail-Related Soft Good Purchases

|	Beverage	Candy/ Snack	Sand- wiches	Ice Cream	Meals at Rest.	Other	None
☐ Soft Good	512	161	156	184	341	37	979

Description
By far the largest response category was none of these. Only 44 percent of trail users reported a soft goods purchase during their trail visit.

Partner Agency Comments & Insights
- Question 14-A asked for an estimate of the amount spent per person on the indicated soft goods items. The average amount reported was $13.12.

Question 15: Did your visit to the trail involve an overnight stay in one of the following types of accommodations? (Circle one response)
Motel/Hotel
Bed and Breakfast
Friend or Relatives home
Campground
Other

Trail-Related Overnight Stays

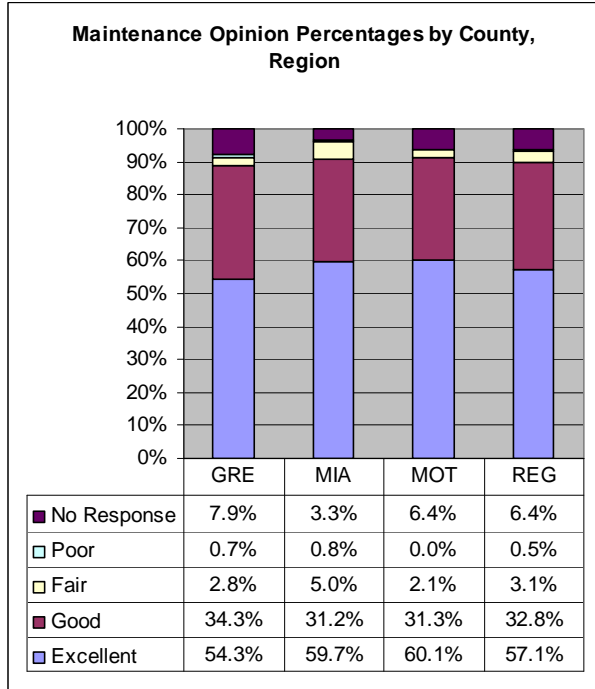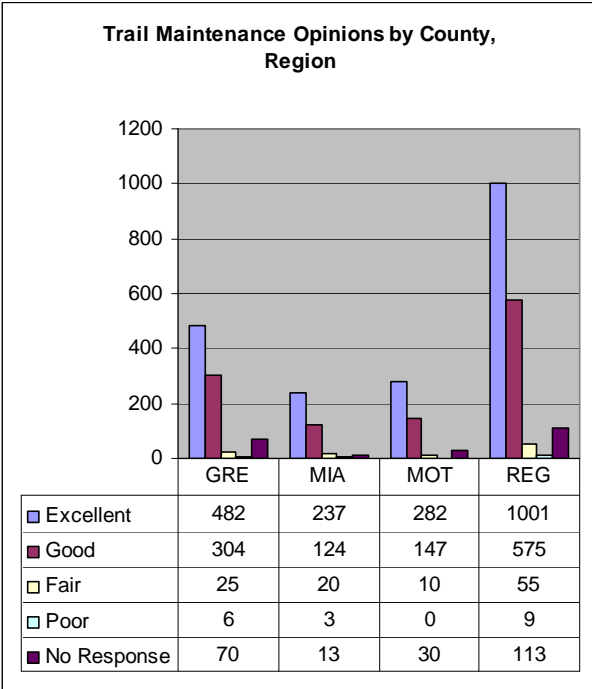|	Bed and Breakfast	Friend or Relatives	Motel/Hotel	Other	Camp-ground
Overnight Stay	19	34	44	9	24
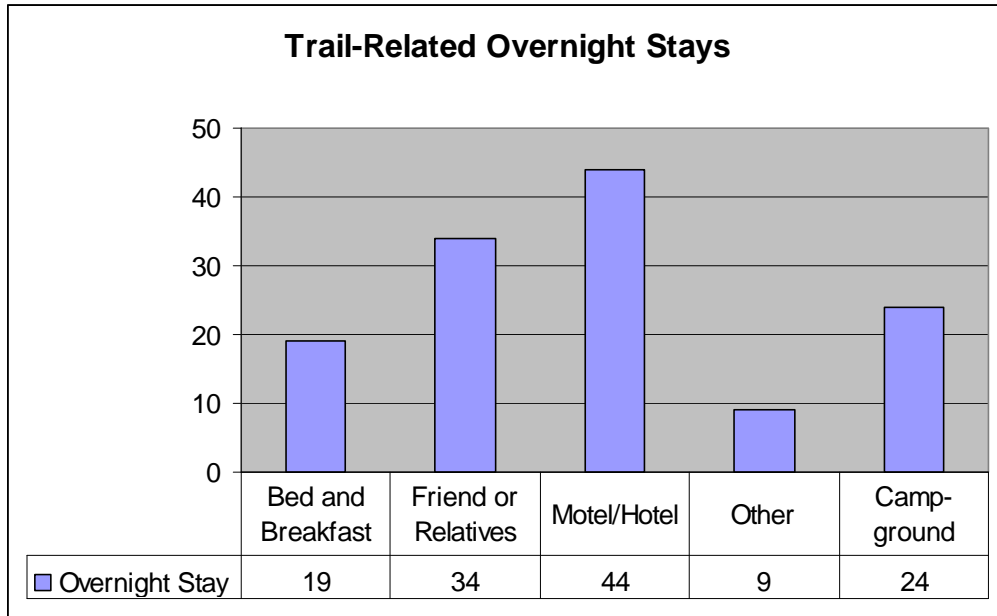
Description
Only 130 survey responses indicated a related overnight stay. A majority of these (82) were reported in Greene County. Overall, about 7.4 percent of trail users reported staying overnight as part of their trail experience.

Partner Agency Comments & Insights
- Question 15-A asked how many nights the respondent stayed (for those who indicated an overnight stay. The average of the responses was 2.8 nights.
- Question 15-B asked for an estimate of the amount spent per night on overnight accommodations. The average amount reported was $76.

Question 17: In your opinion, the maintenance of the trail is (Circle one)
Excellent
Good
Fair
Poor

Trail Maintenance Opinions by County, Region

	GRE	MIA	MOT	REG
■ Excellent	482	237	282	1001
■ Good	304	124	147	575
□ Fair	25	20	10	55
□ Poor	6	3	0	9
■ No Response	70	13	30	113

Maintenance Opinion Percentages by County, Region

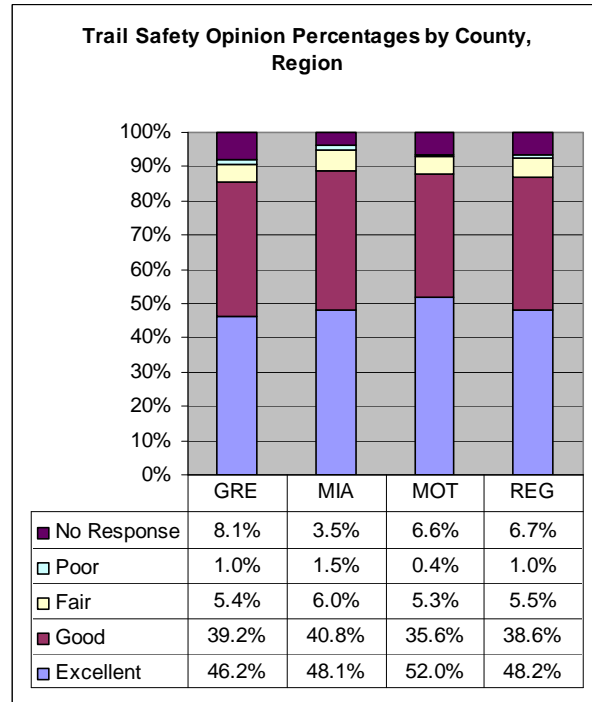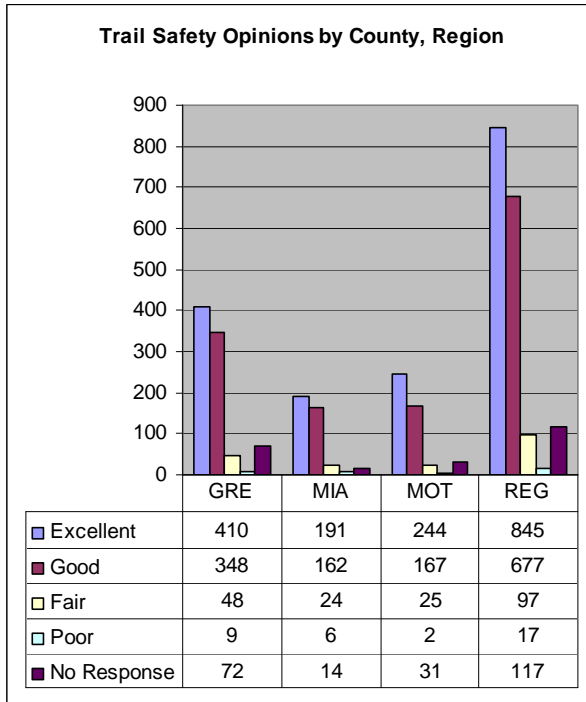|	GRE	MIA	MOT	REG
■ No Response	7.9%	3.3%	6.4%	6.4%
□ Poor	0.7%	0.8%	0.0%	0.5%
□ Fair	2.8%	5.0%	2.1%	3.1%
■ Good	34.3%	31.2%	31.3%	32.8%
■ Excellent	54.3%	59.7%	60.1%	57.1%

Description
There is a regional pattern of responses to this question. In all counties about 90 percent of responses indicated that trail maintenance is "excellent" or "good." In all counties, this question was on the back of the survey form, and much of the no response data comes from respondents who did not answer any questions on the back of the form.

Partner Agency Comments & Insights
- This was a trail user survey, so high opinions of trail maintenance are to be expected. Trail users who find the maintenance unacceptable are unlikely to be using the trail in the first place.
- The out-of-town zip code responders almost unanimously gave high marks in these three related questions.

Question 18: In your opinion, the safety and security along the trail is (Circle one)
Excellent
Good
Fair
Poor

Trail Safety Opinions by County, Region

	GRE	MIA	MOT	REG
Excellent	410	191	244	845
Good	348	162	167	677
Fair	48	24	25	97
Poor	9	6	2	17
No Response	72	14	31	117

Trail Safety Opinion Percentages by County, Region

	GRE	MIA	MOT	REG
No Response	8.1%	3.5%	6.6%	6.7%
Poor	1.0%	1.5%	0.4%	1.0%
Fair	5.4%	6.0%	5.3%	5.5%
Good	39.2%	40.8%	35.6%	38.6%
Excellent	46.2%	48.1%	52.0%	48.2%

Description
There is a regional pattern of responses to this question. In all counties about 85 percent of responses indicated that trail safety and security is "excellent" or "good." In all counties, this question was on the back of the survey form, and much of the no response data comes from respondents who did not answer any questions on the back of the form.

Partner Agency Comments & Insights
- This was a trail user survey, so high opinions of trail safety and security are to be expected. Trail users who find the safety and security unacceptable are unlikely to be using the trail in the first place.
- Overall assessment of trail safety is very positive, though fewer chose excellent than in the maintenance question. Some comments associated with this question indicated that sparse police or volunteer patrol presence led some to choose "good" over "excellent."
- The out-of-town zip code responders almost unanimously gave high marks in these three related questions.
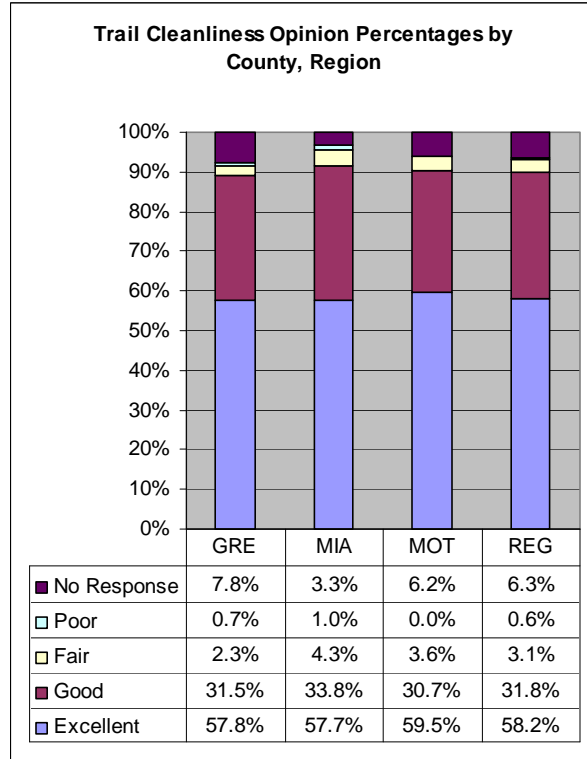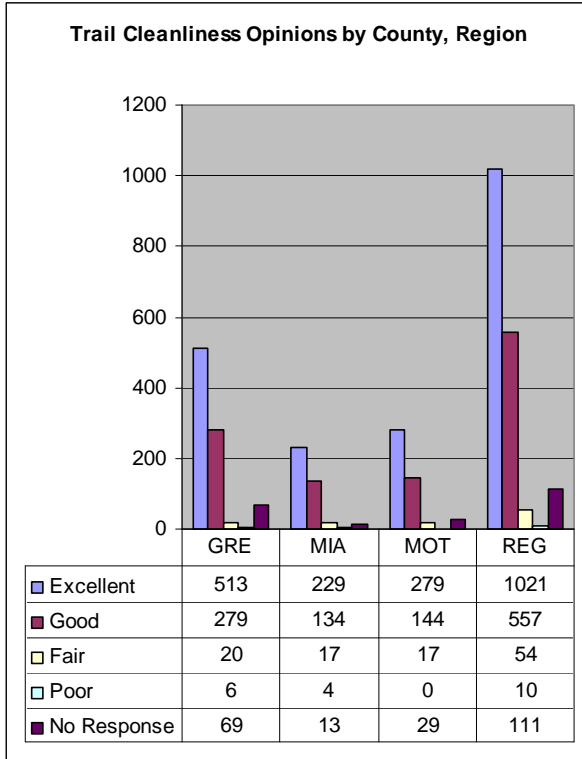
Question 19: In your opinion, the cleanliness of the trail is (Circle one)
Excellent
Good
Fair
Poor

Trail Cleanliness Opinions by County, Region

	GRE	MIA	MOT	REG
■ Excellent	513	229	279	1021
■ Good	279	134	144	557
□ Fair	20	17	17	54
□ Poor	6	4	0	10
■ No Response	69	13	29	111

Trail Cleanliness Opinion Percentages by County, Region

	GRE	MIA	MOT	REG
■ No Response	7.8%	3.3%	6.2%	6.3%
□ Poor	0.7%	1.0%	0.0%	0.6%
□ Fair	2.3%	4.3%	3.6%	3.1%
■ Good	31.5%	33.8%	30.7%	31.8%
■ Excellent	57.8%	57.7%	59.5%	58.2%

Description
There is a regional pattern of responses to this question. In all counties about 90 percent of responses indicated that cleanliness is "excellent" or "good," with at least 57 percent indicating "excellent." In all counties, this question was on the back of the survey form, and much of the no response data comes from respondents who did not answer any questions on the back of the form.

Partner Agency Comments & Insights
- This was a trail user survey, so high opinions of trail cleanliness are to be expected. Trail users who find the cleanliness unacceptable are unlikely to be using the trail in the first place.
- The out-of-town zip code responders almost unanimously gave high marks in these three related questions.

Findings: Economic Impacts

The survey and count project included elements that matched the methodology developed by the Rails-to-Trails Conservancy to measure the economic impact of trails. The methodology is described in the 2005 publication, "Trail User Survey Workbook," available from the Rails-to-Trails web site.[2] The method is designed to measure three separate aspects of economic activity related to trail usage: Hard Goods, Soft Goods and Overnight Accommodations. 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 5/2, 13, 13-A, 14, 14-A, 15, 15-A and 15-B each provided information that factors into the economic impact analysis. From these questions the following information was determined:

Factor	Data Source Question	Data Analysis	Result
Hard Goods % Usage	13	1 – (percent of "Nothing" response)	72.85%
Hard Goods Average Spending	13-A	Average of responses greater than zero	$516
Average number of trips per trail user per year	5/2	Calculation of overall average based upon weighted frequency responses	9.31
Soft Goods % Usage	14	1 – (percent with no response)	44.15%
Soft Goods Average Spending	14-A	Average of responses greater than zero	$13.12
Overnight Accommodations % Usage	15	Percent of all responses that indicated an overnight stay.	7.41%
Average cost of accommodations per night	15-B	Average of responses greater than zero	$76
Average number of nights	15-A	Average of responses between 1 and 99[3]	2.8
Unique Trail Users	5/2	The range of annual trail visits (from agency counts/estimate) divided by average number of trips per trail user per year.	153,000 to 169,000

From the survey data, total trail visits were calculated as follows. Trail count data for Sunday and Wednesday were each accepted as good estimates for a Summer weekend and weekday. An estimate of the potential for double counting was factored in based on the proportion of counted

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[2] http://www.railstotrails.org/ourWork/trailBuilding/toolbox/informationSummaries/trailuser_surveys.html

[3] For the question of how many nights did the user stay in accommodations related to the use of the trail, outlier responses of "365" were excluded as it was assumed that the question was misunderstood.

users on bicycles (the most likely mode to travel the distances between count locations). The bike mode share was lower on the weekday, thus the weekday estimate was reduced less than the weekend estimate. Finally, to estimate Winter usage, the overall number was multiplied by 0.4 to account for the drop off in cold weather.

Summer months are April through October, with 214 days, 152.8 weekdays and 61.2 weekend days. The Winter months are November through March, with 151 days, 107.8 weekdays and 43.2 weekend days.

SUMMER	Weekday	Weekend
Count (a)	4,400	10,900
Day of week factor (b)	152.8	61.2
Seasonality factor (c)	1.0	1.0
Double Count Factor (d)	0.9	0.85
Total Visits estimate (=a*b*c*d)	605,088	567,018
Total (S)	1,172,000	

WINTER	Weekday	Weekend
Count (e)	4,400	10,900
Day of week factor (f)	107.8	43.2
Seasonality factor (g)	0.4	0.4
Double Count Factor (h)	0.9	0.85
Total Visits estimate (=e*f*g*h)	170,755	160,099
Total (W)	331,000	

Grand Total (=S+W)	**1,503,000**

Summing the Winter and Summer estimates together results in 1,503,000 as a mid range estimate for total trail visits. However, in the absence of year-round and region-wide trail user count data, the reliability of the 1,503,000 estimate cannot be ascertained. Some trail partner agencies have user count estimates for their sections, but these differ in methodology and precision.   Other than dividing by two to account for "out and back" trips, no examination of potential double counting has been made for agency specific counts. Region-wide counts may have a similar, additional double count issue, thus simply adding these separate counts may not be accurate. In the end, it was decided to estimate the trail user count conservatively, choosing a range of counts centered around 1 million visits per year.

Using the Rails-to-Trails methodology, the trail user survey estimates the following ranges of annual economic impact from trail usage.

Category	% Usage	Avg. $	Avg. Life	Avg. # of Trips	Annual User Visits		
					950,000	1,000,000	1,050,000
Hard Goods	72.85%	$516	6 Years	9.31	$6,389,366	$6,725,649	$7,061,931
Soft Goods	44.15%	$13.12			$5,502,856	$5,792,480	$6,082,104

Category	% Usage	Avg. $	Avg. # of Nights	Unique Trail Users		
				102,041	107,411	112,782
Overnight Accommodations	7.41%	$76	2.8	$1,609,029	$1,693,714	$1,778,400

In total, the user survey estimates the annual economic impact of the trails to be between $13.5 million and $14.9 million, region-wide.

Partner Agency Comments & Insights
- Trail user survey takers reported a high use frequency. Over 40 percent of trail users reported using the trails three or more times per week. An additional 20 percent reported once or twice a week use. However, there is no way to know if survey respondents were accounting for their use frequency in Winter months. For this reason, this report selected the 7-month per year frequency analysis to factor in seasonality.
- Fewer than half of trail users reported purchasing soft goods on the day the survey was taken. Private economic development and trail concessions may be able to tap un-met demand along the trails.
- Increasing the coverage and usage of automatic counters over the upcoming years will allow for more confidence in the overall trail counts. With better count numbers, survey-measured economic impacts will be more reliable. Regional coordination of trail counts should keep costs lower and provide a more uniform count methodology.

Conclusions and Suggestions

The trail count and survey data revealed a number of region-wide patterns of usage; there was a lack of major County differences. Survey and count results showed little difference from county to county, except in terms of scale. Total numbers were consistently highest in Greene County; indeed, Greene often totaled more than Montgomery and Miami combined. But for almost every question the percentages broke down almost identically across the Region.

Other interesting items from the survey:
- Public Health benefit – the trails seem to be well used recreational facilities that provide regular free access to physical activity for thousands of Miami Valley residents. Overwhelming numbers of trail users reported that they use them for recreation, health and fitness.
- Lack of children on the trail – very few trail users reported having any children under the age of 15 with them on the trail. In fact, there were more people accompanied by dogs than children. Factors which may contribute to the lack of children could include a skateboard ban in Montgomery County and the predominance of males aged 45-64 using the trails. Partnering with public health, schools and other child wellness partners may increase usage by children by making parents better aware of the benefits of trail usage.
- Lack of ADA usage – trail usage by residents with disabilities is very low, despite the accessible access points throughout the system. These access points, however, are generally only accessible themselves by automobile; this may be a barrier to increased usage by persons with disabilities. Outreach to agencies and advocates for the disabled may develop opportunities for increased trail usage.
- Trail Agency impacts for maintenance and staffing – overwhelming majorities of trail users feel that trail maintenance and security or either excellent or good. Some comments mentioned a lack of visible security on the trail, such as volunteer trail monitors.

Trail count data is vital to making reliable estimates of the trails' impacts on the Regional economy and quality of life. The trail managing agencies are taking steps toward automating their trail counts and broadening the areas covered with such counts. Over the next several years these efforts should be encouraged. It is recommended that the agencies continue to hold annual weekday and weekend count days, as a double check on the automated count programs. These separately developed counts will then provide a better estimate of trail usage when the next survey is conducted.

With over 1,750 completed surveys, the data generated from the survey can be thought to be highly reliable. Extrapolations from the data regarding economic impact rely on annual user count figures, for which there are more uncertainties. Until annual user count numbers are available there will be little utility in conducting another survey. A full scale survey project is recommended to occur every four to five years, with the next such effort for the Summer of 2013 or 2014. In the intervening years the trail agencies should coordinate trail counting efforts to support future data analyses.

Lessons Learned

There were a number of learning opportunities as this was the first year of user counts and surveys. In evaluating the process, a number of suggestions and possibilities for the coming years spring forward.

- Making a volunteer training video to be placed on an agency web site for multiple organizations to use. Such a resource would ensure standardized training for all volunteers across the region.
- Survey was designed for 8.5 x 14 paper and was miscopied onto 8.5 x11 paper, resulting in lost questions. The form should be shorter and easier to copy. Several questions may really be unnecessary in the future, including Questions 12, 16, 20 and 21.
- A shortage of volunteers resulted in certain trail segments not being covered in this project. Earlier efforts at volunteer recruiting with cooperating organizations will hopefully allow for more complete coverage in future counts and surveys.
- Segments and access points didn't get filled in on some forms and many didn't know how to answer this section. The Regional Bikeways Committee should brainstorm better methods for the Park agencies to discover the most popular or crowded sections. As a side note, these local customizations resulted in a very complicated Access database for recording the data. Dropping this question or leaving it as an open-ended question would be preferable.
- The most frequent "other" response (for example in Question 12: "Live near by") should be added to the standard choices for the questions with the "Other" option.
- If the survey form can be more standardized for the region, it may be possible to provide an empty database to allow the park districts to enter survey results on their own.
- A winter month count/survey would help to measure the seasonal drop-off in trail activity, though this may be impractical from a volunteer standpoint.