



# 2014

## Black Hawk County Metropolitan Area Trail Count Report

Prepared by the

Iowa Northland Regional  
Council of Governments

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**INRCOG**

[www.inrcog.org](http://www.inrcog.org)

# Background

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## Introduction

Studying trail usage is an important part of evaluating the Cedar Valley trail network and helps determine future efforts to enhance and expand the trail system. This document is a summary of trail usage in the Waterloo/Cedar Falls metropolitan area as determined by actual trail counts, observations conducted by volunteers, and responses from an online trail usage survey conducted during a one week period in June, 2014.

Figures presented in this document are only a sample of the overall trail system. Comparisons to previous years are meant to demonstrate trends that could influence future decisions relating to trail investments. The counts for this report were not tested for statistical significance and therefore cannot be significantly applied to the overall trail system. However, the methods for conducting the counts and observations are very similar to previous counts and can accurately show trends.

## Methodology

During the week of June 15, 2014, the Iowa Northland Regional Council of Governments (INRCOG), with the assistance of numerous volunteers, conducted a trail user count on the Waterloo/Cedar Falls metropolitan trail network. The duration of this trail count was from 6:00 to 21:00 every day from Sunday, June 15 through Saturday, June 21 regardless of weather conditions. Each day consisted of four time slots at each count location: 6:00 to 9:00, 9:00 to 13:00, 13:00 to 17:00, and 17:00 to 21:00.

The same week-long duration was used for trail counts in 2009, 2004, 2000, 1999, 1998, 1997, and 1996. These past trail counts were also conducted in June. Throughout the week, volunteers from local governments, trail advocacy groups, and the general public documented trail usage at various locations.

In 1996 and 1997, counts were recorded at four locations, and a fifth location was added in 1998. These same five locations were counted in 1999, 2000, and 2004 in order to develop consistent observations that would demonstrate trends in usage of the core trail system. In 2009, five additional locations were added to include new trails further from the core where accurate trail usage was unknown.

For the 2014 trail count, Location 4 included two separate locations to evaluate the impacts of the newly constructed Cedar Falls Mayors Pedestrian Bridge and Greenhill Road Underpass. To more accurately document trail usage in downtown Cedar Falls, Location 3 was also divided into two separate locations. In addition, a new count location was added to capture trail use along the newly renovated Downtown Waterloo Riverfront. To compensate for these additional locations, a trail count was not conducted at the intersection of the Ansborough Trail and Sergeant Road Trail which

had been counted in 2009. Furthermore, electronic counters were utilized on the Cedar Valley Nature Trail at two locations which had been manually counted in 2009 and at one new location at the Big Woods Lake loop.

In previous counts, volunteers were able to observe and count trail usage at all count locations for nearly every time slot with few vacancies. For the 2014 trail count, volunteers were not able to count during every time slot during the weeklong period, resulting in a greater number of vacant time slots. In addition, prolonged rainfall throughout the week resulted in flooding along areas of the Cedar River which resulted in washouts at multiple count locations. Accordingly, for comparative purposes, the average number of trips per hour is the value used throughout this plan to more accurately reflect changes over time. For each location, a “trip” is determined as a user traveling in one direction. The total number of trips observed was divided by the total number of hours spent observing trail users at each location to determine the average number of trips per hour.

Volunteers recorded several variables related to trips made on the trail system. At all count locations, the observer documented the direction, including turning movements, the trail users traveled. Counters also documented which mode trail users utilized (i.e. walk/run, bike, rollerblade, wheelchair), whether or not a helmet was used, number of children, and ancillary trips. An example of the trail count form can be found in **Appendix 1**. For the purpose of this study, ancillary trips were considered as those in conjunction with one of the primary modes and include strollers, dogs, tandem users, recumbent users, and carriers attached to a bike. As with previous counts, ancillary trips were not included in the overall trail counts and are listed as separate trips. It is important to note that with this trail count, the data reflects the number of trips observed rather than total number of users; it is likely that individual trail users were counted multiple times. The primary intent of these observations is to determine trends and usage rates at certain locations.

Trips were counted primarily at major trail intersections in order to determine which trails experience the most users. Weather conditions play a large role in trail usage, and conditions were noted throughout the entire period to help explain the cause of any substantial changes in trail use. During the 2014 trail count, the weather was generally more conducive for trail use during the first half of the week with sunny skies and temperatures ranging from the upper 60s to mid-80s. The second half of the week experienced prolonged periods of cloudiness, rain, and gusty winds. **Table 1** shows the general weather conditions experienced throughout the metropolitan area during the count week. The tables shown in **Appendix 2** show detailed weather conditions experienced throughout the metropolitan area during the count week.

Table 1 – Weather Conditions for the Metropolitan Area for the Week of June 15, 2014

	Sunday June 15	Monday June 16	Tuesday June 17	Wednesday June 18	Thursday June 19	Friday June 20	Saturday June 21	
06:00-09:00	70.0°	67.5°	65.8°	66.3°	67.3°	66.8°	69.8°	Sunny
09:00-13:00	76.2°	80.8°	74.2°	74.0°	70.0°	75.2°	75.6°	Cloudy
13:00-17:00	80.6°	83.2°	82.2°	79.8°	69.0°	85.0°	83.2°	Rainy
17:00-21:00	78.6°	77.6°	82.4°	78.0°	69.6°	81.6°	83.4°	

Weather Source: National Weather Service

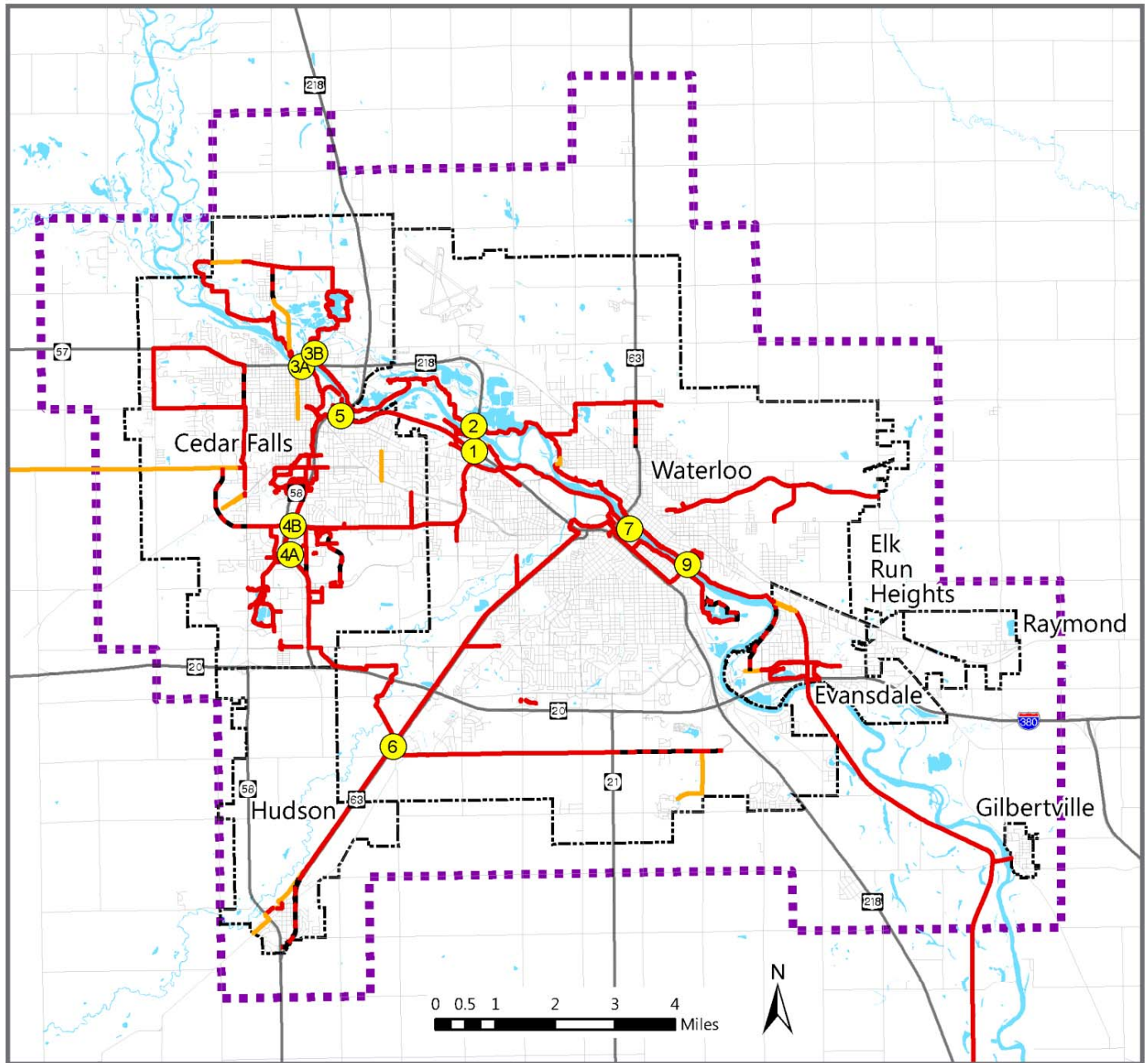
In conjunction with the trail count, an online trail use survey was developed to determine the demographic make-up of trail users. Postcards for the online survey were distributed by volunteers at the ten trail count locations throughout the count week. Information including gender, income, and age were solicited as well as spending patterns, mode and frequency of use, and place of residence. In addition, satisfaction with the existing trails and suggested improvements were solicited. The results of the survey can be found in **Appendix 4**.

### Count Locations







The location of each trail count can be seen in **Map 1**. A description of each location is as follows:


- *Location 1:* Intersection of the South Riverside Trail and Greenhill Rd. Trail – Immediately west of U.S. 218/Greenhill Rd. interchange
- *Location 2:* Intersection of the Cedar Valley Lakes Trail and the Greenhill Rd. Trail – East end of George Wyth State Park
- *Location 3a:* Intersection of Cedar Valley Lakes Trail and Main St. – Downtown Cedar Falls
- *Location 3b:* Intersection of Cedar Valley Lakes Trail and Big Woods Loop – Gateway Park
- *Location 4a:* Cedar Falls Mayors Pedestrian Bridge (new location)
- *Location 4b:* Cedar Falls Greenhill Rd. Underpass
- *Location 5:* South side of the trail bridge at Pfeiffer Park – Cedar Falls
- *Location 6:* Sergeant Rd. Trail & Cedar Prairie Trail – North of Shaulis Rd./U.S. 63 intersection
- *Location 7:* Downtown Waterloo Riverfront – South side of the Cedar River (new location)
- *Location 9:* 18<sup>th</sup> St. Bridge in Downtown Waterloo – North side of the Cedar River





**Map 1**  
**Black Hawk County Metropolitan Area**  
**2014 Trail Count Locations**

-  Existing Trail
-  Existing Paved Shoulder
-  Programmed Trail
-  Trail Count Location
-  City Boundary
-  MPO Study Area

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# Trail Count Data

As mentioned previously, the weather was generally more conducive for trail use during the first half of the count week, while the second half of the week experienced prolonged periods of cloudiness, rain, gusty winds, and flooding. **Table 2** compares the total trips recorded by time and date as well as the weather conditions experienced in the metropolitan area. The tables in **Appendix 3** summarize the total trips recorded at each count location and the weather conditions experienced.

Table 2 – Total Trips and Weather Conditions for the Week of June 15, 2014

	Sunday June 15	Monday June 16	Tuesday June 17	Wednesday June 18	Thursday June 19	Friday June 20	Saturday June 21	
06:00-09:00	173	273	148	63	13	191	386	Sunny
09:00-13:00	773	812	627	457	157	821	1,212	Cloudy
13:00-17:00	1,359	485	532	893	53	719	593	Rainy
17:00-21:00	563	329	740	939	275	878	327	

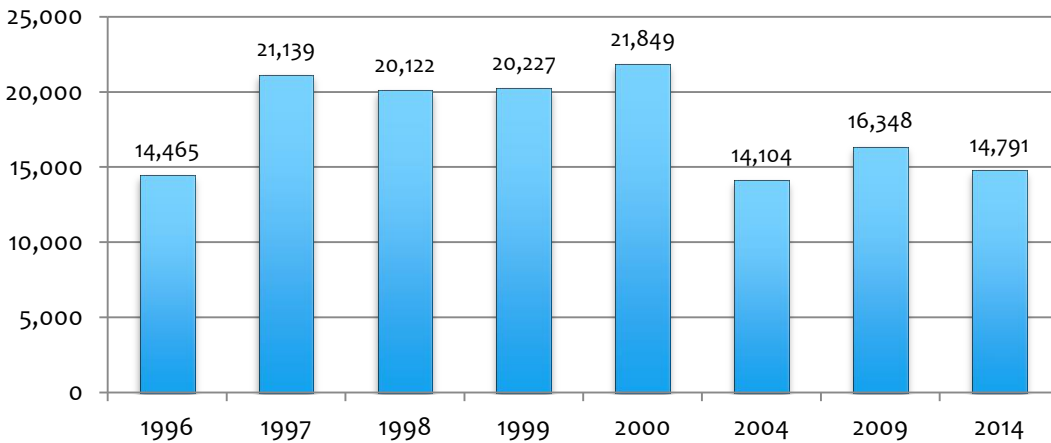
Weather Source: National Weather Service

**Table 3** shows the total trips recorded and trips per hour at each count location in 2014. With almost 23 percent of the total trips recorded, the Pfeiffer Park Trail Bridge witnessed the highest percentage of trail users recorded.

COUNT LOCATION	2014 TOTAL TRIPS	2014 TRIPS/HR.
1 South Riverside Trail/Greenhill Rd. Trail	1,256	21.3
2 Cedar Valley Lakes Trail/Greenhill Rd. Trail	861	15.7
3a Cedar Valley Lakes Trail/Main St.	1,837	24.8
3b Cedar Valley Lakes Trail/Big Woods Loop	1,661	23.4
4a Cedar Falls Mayors Pedestrian Bridge	1,976	23.2
4b Cedar Falls Greenhill Rd. Underpass	1,849	28.4
5 Pfeiffer Park Trail Bridge	3,391	40.4
6 Sergeant Rd. Trail/Cedar Prairie Trail	584	9.6
7 Downtown Waterloo Riverfront	1,129	35.3
9 18 <sup>th</sup> St. Bridge	247	13.0
<b>Total/Average</b>	<b>14,791</b>	<b>23.5</b>

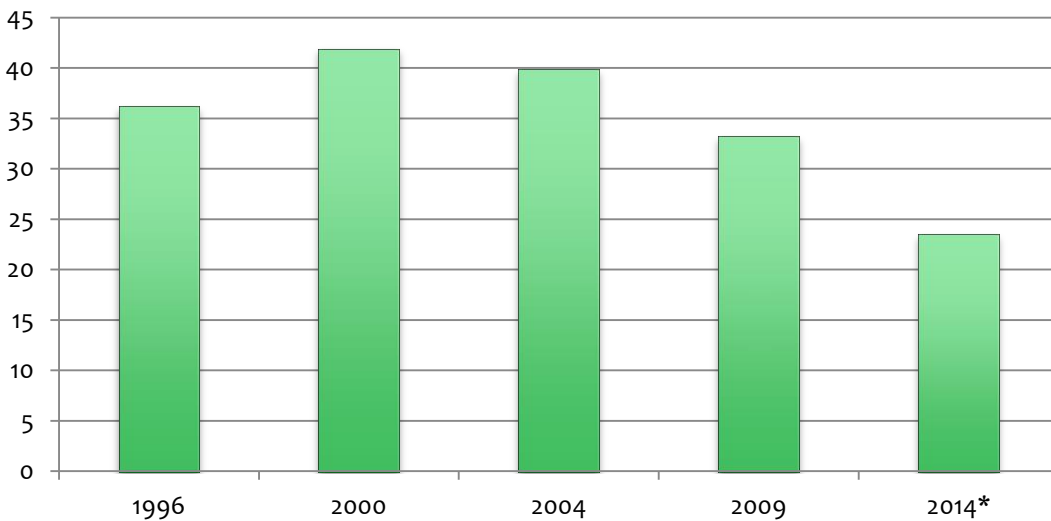
A comparison of the total trips recorded during each count year is summarized in **Figure 1**. As indicated below, 14,791 trips were recorded during the 2014 trail count. It should be noted that since the 2001 trail count, the metropolitan trail network has expanded from 63 miles to nearly 104 miles, an increase of approximately 65 percent. This may have led to greater dispersion of trail users, potentially resulting in lower count totals.

**Figure 1: Total Recorded Trips by Count Year**



**Figure 2** compares the average number of trips per hour recorded from 1996 to 2014. As noted above, the average number of trips per hour is a more accurate measurement for comparing year-by-year trail count results. The data indicates a steady decrease in trail use from 2000 to 2014. Over this time period, average trips per hour recorded decreased by almost 44 percent.

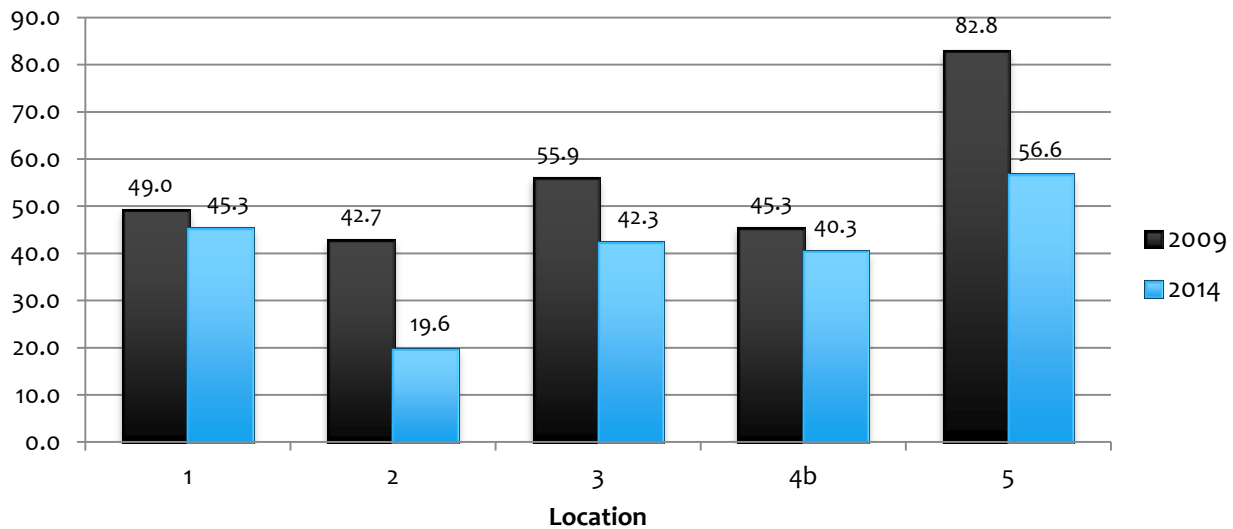
**Figure 2: Average Trips per Hour Recorded, 1996 to 2014**



*\* Poor weather conditions and flooded trail segments may have impacted recorded trail use during the 2014 trail count. Furthermore, increased trail mileage may have led to greater dispersion among trail users. Additional analysis is required to fully examine existing trail use.*

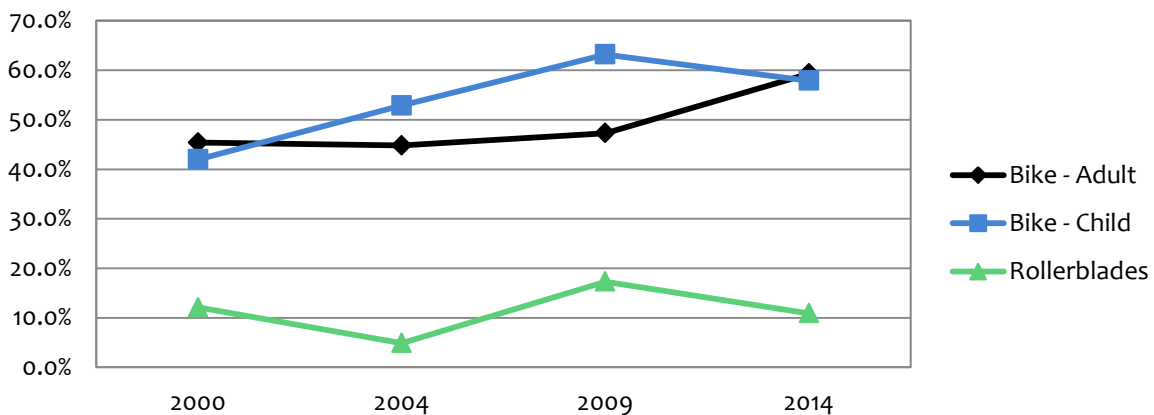
A comparison of weekend trips per hour in 2009 and 2014 is shown in **Figure 3**. For both years, weekend weather conditions were sunny to partly cloudy with light winds and temperatures in the upper 70s. For locations 2 and 3, the data from the 2014 trail count only includes trips recorded on Sunday, as both trail locations were closed on Saturday due to flooding along the Cedar River. As shown, trail use in 2014 appears to be lower than levels recorded in 2009 with an average decrease of 25.7 percent. Due to poor weather conditions and flooded trail segments, these numbers may not accurately reflect current trail use. Additional analysis is required to fully examine existing trail use.

**Figure 3: Weekend Trips per Hour, 2009 vs. 2014**



**Figure 4** summarizes helmet use by mode from 2000 to 2014. Helmet use for bicyclists has increased substantially over the years. However, helmet use by child bicyclists experienced a decrease of 5.3 percent from 2009 to 2014. The use of helmets by rollerbladers has been relatively consistent over this time period.

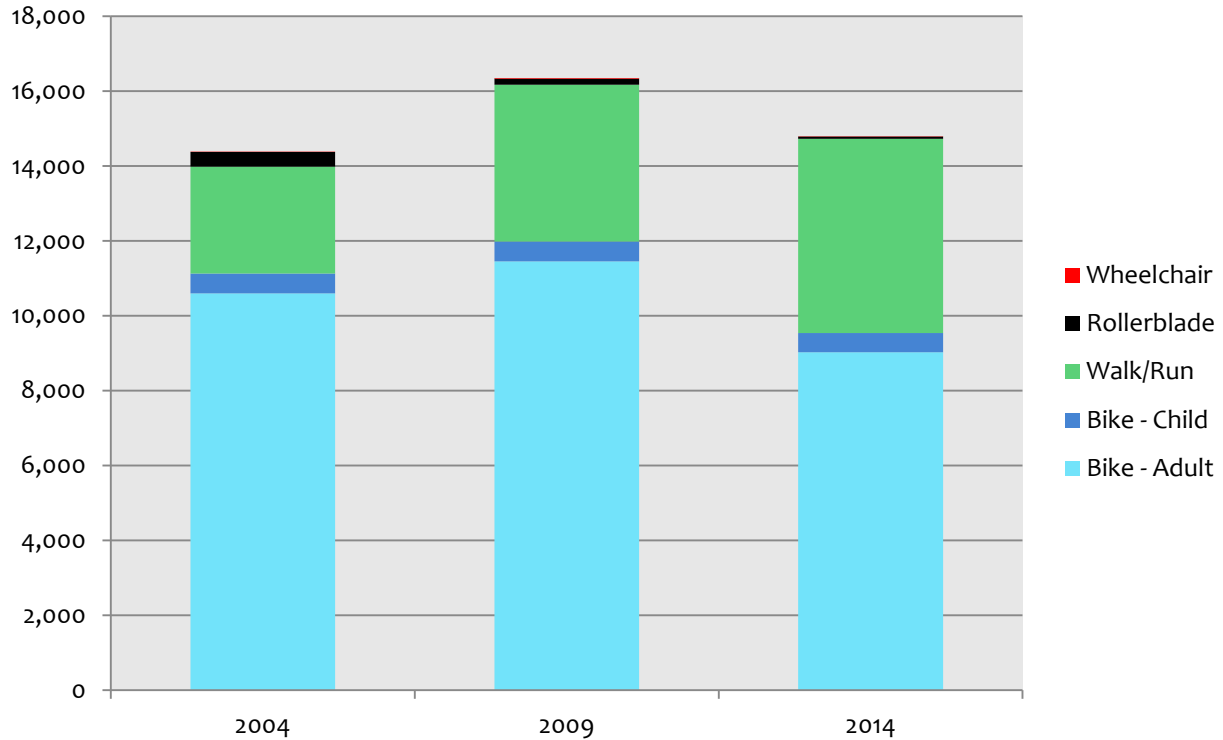
**Figure 4: Helmet Use by Mode**





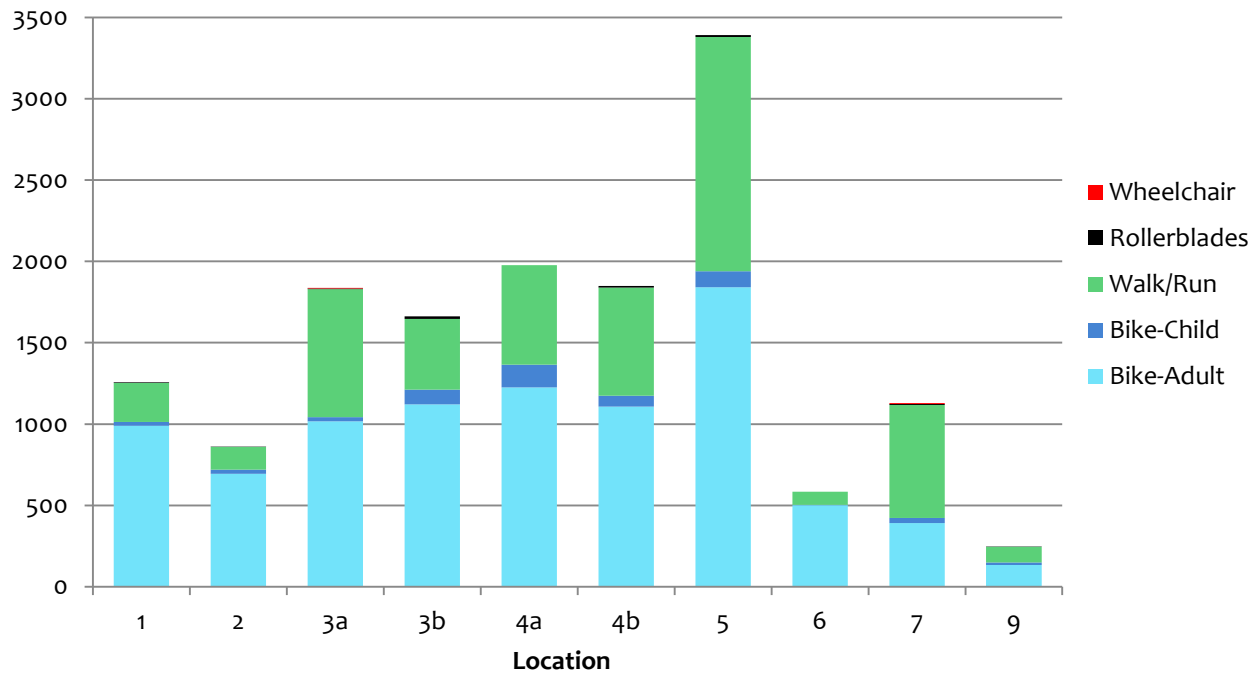
**Figure 5** compares the total number of trips recorded by mode per year from 2004 to 2014. Over this time period, adult bicyclists averaged 73.7 percent of the total number of trail users recorded on the trail network. Child bicyclists averaged 3.5 percent of all trail users with minimal fluctuations from year to year. Overall, trips by rollerbladers experienced the largest decrease in total trips, from 2.7 percent in 2004 to 0.4 percent in 2014. Trips for walking and running experienced the sharpest increase in total trips, from 19.9 percent in 2004 to 35.1 percent in 2014.

**Figure 5: Total Recorded Trips by Mode, 2004 - 2014**



**Figure 6** shows the total trips recorded by mode per location during the 2014 trail count. As shown, the modal split depends on the location and its relationship to the trail system and adjoining land use. Locations 1, 2, and 6 recorded the highest percentage of bicyclists with an average of 83.4 percent. This is likely due to the more remote nature of the locations. Conversely, an average of 48.9 percent of trips recorded at locations 3a, 5, and 7 were walkers or runners, likely due to the proximity to densely populated residential areas.

**Figure 6: Total Trips Recorded by Mode per Location, 2014**

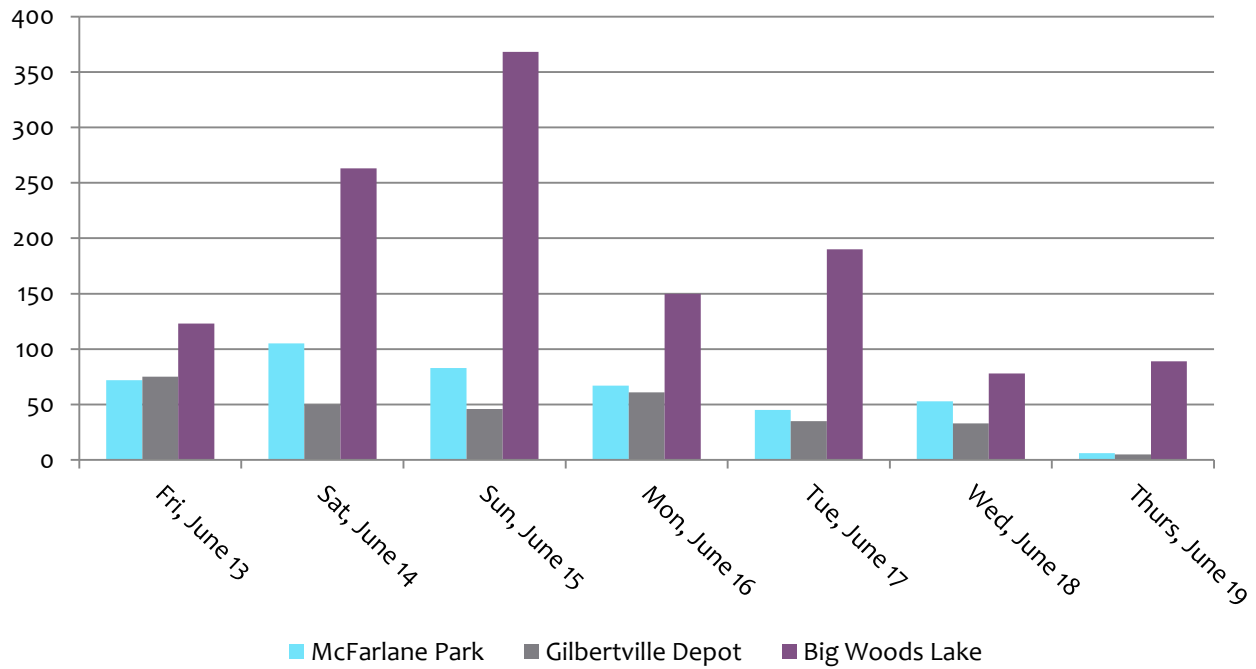


**Table 4** summarizes the total ancillary trips recorded during the 2014 trail count. Ancillary trips are described as those that are an additional part of a trail user’s primary mode. For example, if a dog accompanies a walker on the trail, the walker is considered the primary trip and the dog an ancillary trip. Ancillary trips are not included in the previously mentioned trip totals.

ANCILLARY TRIP TYPE	2014 TOTAL TRIPS	% OF TOTAL
Carrier	128	14.3
Dog(s)	383	42.7
Stroller	181	20.2
Recumbent	120	13.4
Tandem	85	9.4
<b>Total</b>	<b>897</b>	<b>100.0</b>

As mentioned previously in this document, electronic counters were utilized to estimate trail use on the Cedar Valley Nature Trail. Infrared trail counters were temporarily installed at the Gilbertville Depot and the McFarlane Park Trailhead. Additionally, an infrared trail counter was setup on the Big Woods Lake Trail in front of the cabin on the northeast side of the lake. All three electronic counters recorded data from Friday, June 13 to Thursday, June 19. **Figure 7** shows the total trips recorded per location.

**Figure 7: Total Trips Electronically Recorded by Location, 2014**



# Appendix 1: Example 2014 Trail Count Form

## 2014 Trail Count Form

Name: \_\_\_\_\_ Location: 5 (South side of trail bridge at Pfeiffer Park – Cedar Falls) Date: \_\_\_\_\_

Start Time: \_\_\_\_\_ End Time: \_\_\_\_\_

Weather:  Sun  Rain  Overcast  Windy Temperature:  <60°  60°-69°  70°-79°  80°-89°  90°+

- If you are the first person scheduled for the day at your location, you will be responsible for bringing the count sheets to that location. Each timeframe for counting has its own count sheet.
- Be sure to bring all materials that you will need (something to write on, food, water, lawn chair, sunscreen, bug spray, etc.). When finished with your scheduled count time, put your count sheet in the envelope and give the envelope and clipboard to the person who is replacing you.
- **Please arrive 15 minutes before your scheduled count time.** Stay at your location until the next person arrives. If this person does not arrive within one half-hour, contact Kyle Durant at (319) 235-0311 or (319) 215-1454.
- Once you've reached the count site, please ensure your safety. Be aware of your surroundings. The count is to be held rain or shine. However, we ask that you use good judgment if threatening weather is approaching.
- Please fill in the weather conditions (sun, rain, overcast, windy, temperature). Count all bicyclists and pedestrians under the appropriate categories.
- When handing out cards for the online survey, set up the "Trail Survey PLEASE STOP" sign. Once all assigned survey cards have been distributed, take down the trail survey sign.
- If you are the last person counting in the day:
  - Please leave the clipboard and trail survey sign inside the garbage bag **in the shelter near the trail bridge**.
  - Please bring the envelope with all count sheets to INRCOG, 229 E. Park Avenue as soon as possible.

# Appendix 1: Example 2014 Trail Count Form

Direction	Bikes		Walk/Run	Blades	Wheel-chair	Stroller	Dogs	Tandem	Recum-bent	Carrier
	Adult	Child (Bike < 22")								
	W/ Helmet									
	W/O Helmet									
	W/ Helmet									
	W/O Helmet									
	W/ Helmet									
	W/O Helmet									
	W/ Helmet									
	W/O Helmet									

## Appendix 2: Weather Conditions for the Metropolitan Area June 15, 2014 – June 21, 2014

### Sunday, June 15, 2014

Time	Sky Condition	Temp. (°F)	Humidity (%)	WND Dir.	WND Spd (MPH)
6:00	Cloudy	68	63	SSE	22
7:00	Cloudy	68	68	SSE	22
8:00	Sunny	71	68	S	23
9:00	Partly Cloudy	73	66	S	19
10:00	Mostly Cloudy	76	62	SSW	24
11:00	Mostly Cloudy	76	56	SW	23
12:00	Cloudy	77	58	SW	19
13:00	Mostly Cloudy	79	52	WSW	17
14:00	Mostly Cloudy	78	52	W	15
15:00	Partly Cloudy	81	39	W	16
16:00	Partly Cloudy	82	37	W	17
17:00	Partly Cloudy	83	36	W	14
18:00	Fair	82	34	W	15
19:00	Sunny	80	38	W	9
20:00	Sunny	77	43	W	6
21:00	Fair	71	53	SW	6

Weather Source: National Weather Service

### Monday, June 16, 2014

Time	Sky Condition	Temp. (°F)	Humidity (%)	WND Dir.	WND Spd (MPH)
6:00	Sunny	59	93	SSE	5
7:00	Sunny	65	87	SSE	6
8:00	Sunny	70	76	S	6
9:00	Sunny	76	67	S	9
10:00	Sunny	80	54	S	13
11:00	Sunny	83	44	S	13
12:00	Sunny	83	42	S	15
13:00	Sunny	82	49	S	13
14:00	Mostly Cloudy	82	56	S	12
15:00	Sunny	82	60	SSE	15
16:00	Sunny	84	58	SSE	15
17:00	Partly Cloudy	86	55	SSE	28
18:00	Fair	81	54	S	31
19:00	Sunny	79	64	SSE	23
20:00	Mostly Cloudy	79	64	SSE	23
21:00	Heavy Rain	63	97	NW	17

Weather Source: National Weather Service



## Tuesday, June 17, 2014

Time	Sky Condition	Temp. (°F)	Humidity (%)	WND Dir.	WND Spd (MPH)
6:00	Partly Cloudy	64	90	S	19
7:00	Sunny	64	90	SW	7
8:00	Sunny	66	87	NNE	10
9:00	Sunny	69	78	NE	7
10:00	Sunny	71	75	ESE	6
11:00	Sunny	74	68	SE	9
12:00	Sunny	77	64	SE	10
13:00	Sunny	80	62	SSE	10
14:00	Sunny	84	60	SSE	13
15:00	Fair	83	63	SSE	9
16:00	Cloudy	82	67	ESE	12
17:00	Cloudy	82	69	SE	8
18:00	Cloudy	84	67	SSE	7
19:00	Cloudy	83	72	S	8
20:00	Cloudy	82	71	SSE	7
21:00	Mostly Cloudy	81	77	SE	9

Weather Source: National Weather Service

## Wednesday, June 18, 2014

Time	Sky Condition	Temp. (°F)	Humidity (%)	WND Dir.	WND Spd (MPH)
6:00	Light Rain	66	96	N	6
7:00	Rain	66	96	SW	3
8:00	Mostly Cloudy	66	96	S	10
9:00	Fair	67	97	SSE	16
10:00	Sunny	70	90	SSE	5
11:00	Partly Cloudy	74	82	ENE	12
12:00	Partly Cloudy	78	74	E	14
13:00	Partly Cloudy	81	67	SSE	13
14:00	Partly Cloudy	80	67	SSE	16
15:00	Cloudy	80	67	SE	15
16:00	Cloudy	79	69	SE	13
17:00	Cloudy	79	74	ESE	9
18:00	Cloudy	79	77	ESE	10
19:00	Cloudy	80	76	ESE	13
20:00	Mostly Cloudy	77	79	ESE	15
21:00	Fair	75	82	E	10

Weather Source: National Weather Service

## Thursday, June 19, 2014

Time	Sky Condition	Temp. (°F)	Humidity (%)	WND Dir.	WND Spd (MPH)
6:00	Light Rain	67	89	ESE	23
7:00	Mostly Cloudy	67	93	SE	16
8:00	Light Rain	67	90	SE	17
9:00	Mostly Cloudy	68	90	ESE	15
10:00	Cloudy	69	90	SE	15
11:00	Light Rain	70	90	ESE	9
12:00	Light Rain	73	87	E	6
13:00	Rain	70	93	E	10
14:00	Fair	69	93	E	9
15:00	Light Rain	69	96	ESE	21
16:00	Partly Cloudy	68	93	ENE	9
17:00	Mostly Cloudy	69	93	ENE	9
18:00	Mostly Cloudy	71	87	ESE	10
19:00	Partly Cloudy	70	90	SSE	8
20:00	Light Rain	69	93	E	6
21:00	Light Rain	69	93	SSE	6

Weather Source: National Weather Service

## Friday, June 20, 2014

Time	Sky Condition	Temp. (°F)	Humidity (%)	WND Dir.	WND Spd (MPH)
6:00	Cloudy	65	100	W	3
7:00	Fog	66	100	W	6
8:00	Cloudy	67	97	WNW	5
9:00	Cloudy	69	93	W	5
10:00	Mostly Cloudy	71	87	W	5
11:00	Fair	76	79	W	7
12:00	Sunny	78	74	-	Calm
13:00	Sunny	82	65	WSW	9
14:00	Sunny	84	49	WSW	3
15:00	Sunny	86	38	W	5
16:00	Sunny	86	37	W	7
17:00	Sunny	87	31	-	Calm
18:00	Fair	86	36	WSW	3
19:00	Sunny	81	49	SSW	6
20:00	Fair	79	58	S	3
21:00	Clear	75	69	S	5

Weather Source: National Weather Service

## Saturday, June 21, 2014

Time	Sky Condition	Temp. (°F)	Humidity (%)	WND Dir.	WND Spd (MPH)
6:00	Sunny	71	73	N	8
7:00	Mostly Cloudy	70	76	N	5
8:00	Cloudy	69	90	ENE	7
9:00	Mostly Cloudy	69	87	WSW	3
10:00	Partly Cloudy	72	81	S	7
11:00	Partly Cloudy	76	67	WSW	13
12:00	Mostly Cloudy	80	60	W	6
13:00	Sunny	81	58	NW	7
14:00	Fair	83	58	NW	8
15:00	Fair	83	54	-	Calm
16:00	Fair	84	56	W	5
17:00	Fair	85	55	NW	5
18:00	Sunny	86	53	N	5
19:00	Sunny	86	49	N	5
20:00	Sunny	83	58	NE	5
21:00	Clear	77	76	E	6

Weather Source: National Weather Service

## Appendix 3: Total Trips and Weather Conditions by Count Location

		June 15	June 16	June 17	June 18	June 19	June 20	June 21	
<b>Location 1</b>	06:00-09:00			10			34		Sunny
	09:00-13:00	129	96	59	58	11	90	165	Cloudy
	13:00-17:00	215	80			5	136	168	Rainy
	17:00-21:00								No Count

		June 15	June 16	June 17	June 18	June 19	June 20	June 21	
<b>Location 2</b>	06:00-09:00	26	40	11	17				Sunny
	09:00-13:00	111	83	51	19	1			Cloudy
	13:00-17:00		81	96	114				Rainy
	17:00-21:00			115	94				No Count

		June 15	June 16	June 17	June 18	June 19	June 20	June 21	
<b>Location 3a</b>	06:00-09:00	30	83	18	3		25	34	Sunny
	09:00-13:00	151	151	78	30	18	130	240	Cloudy
	13:00-17:00				113	8	102		Rainy
	17:00-21:00		41	164	128		289		No Count

		June 15	June 16	June 17	June 18	June 19	June 20	June 21	
<b>Location 3b</b>	06:00-09:00			27		1	39	13	Sunny
	09:00-13:00	95	167	73	39	11			Cloudy
	13:00-17:00	300	83	131	103	4			Rainy
	17:00-21:00	227		174	149	25			No Count

		June 15	June 16	June 17	June 18	June 19	June 20	June 21	
<b>Location 4a</b>	06:00-09:00	26	60	28	3	6	37	66	Sunny
	09:00-13:00		44	61	43	4	93	275	Cloudy
	13:00-17:00		84	105	110		68	206	Rainy
	17:00-21:00	148	48	133			152	176	No Count

		June 15	June 16	June 17	June 18	June 19	June 20	June 21	
<b>Location 4b</b>	06:00-09:00	29	90	47	4	5	56	78	Sunny
	09:00-13:00	67		75			129	319	Cloudy
	13:00-17:00	173			115		87	219	Rainy
	17:00-21:00		77			85	194		No Count

		June 15	June 16	June 17	June 18	June 19	June 20	June 21	
<b>Location 5</b>	06:00-09:00	59			6	1		180	Sunny
	09:00-13:00	212	177	127	80	31	136	200	Cloudy
	13:00-17:00	442	157	200	200	36	145		Rainy
	17:00-21:00		144		370	165	172	151	No Count

		June 15	June 16	June 17	June 18	June 19	June 20	June 21	
<b>Location 6</b>	06:00-09:00	3		7				15	Sunny
	09:00-13:00	8	49	48			55	13	Cloudy
	13:00-17:00	47					49		Rainy
	17:00-21:00	61	19	55	84		71		No Count

		June 15	June 16	June 17	June 18	June 19	June 20	June 21	
<b>Location 7</b>	06:00-09:00								Sunny
	09:00-13:00				168	81	188		Cloudy
	13:00-17:00	182			138		132		Rainy
	17:00-21:00	126			114				No Count

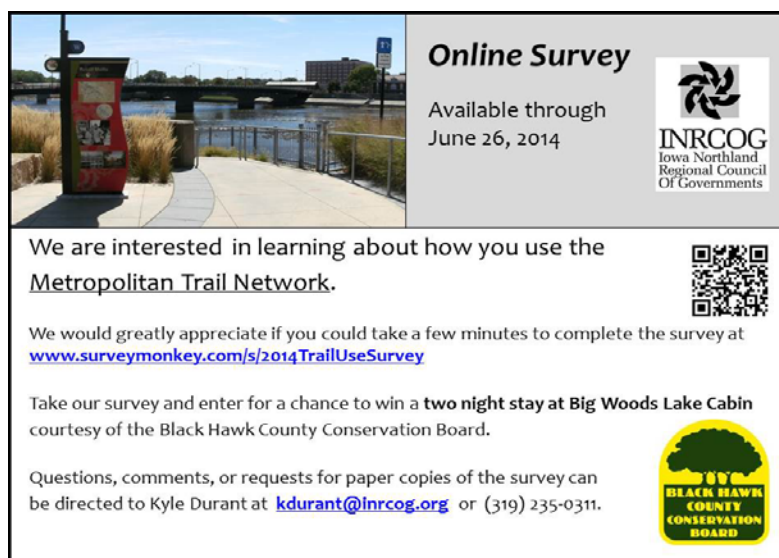
		June 15	June 16	June 17	June 18	June 19	June 20	June 21	
<b>Location 9</b>	06:00-09:00				9				Sunny
	09:00-13:00		45	55	39				Cloudy
	13:00-17:00								Rainy
	17:00-21:00			99					No Count



## Appendix 4: 2014 Trail Use Survey Report

### Overview

An online trail use survey was developed as part of the 2014 Waterloo/Cedar Falls Metropolitan Area Trail Count. Postcards for the online survey were distributed at ten trail count locations between 6:00 a.m. and 9:00 p.m. each day. A total of 500 online survey postcards were distributed evenly across each count location and time slot. Volunteers distributed the postcards at random intervals throughout their four-hour shifts.



*Postcard that was distributed for the 2014 Trail Count Online Survey*

The purpose of the online survey was to determine the demographic make-up of trail users. Information including gender, income, and age were solicited as well as spending patterns, mode and frequency of use, and place of residence. In addition, satisfaction with the existing trails and suggested improvements were solicited. Survey takers could also enter for a chance to win a two night stay at Big Woods Lake Cabin courtesy of the Black Hawk County Conservation Board.

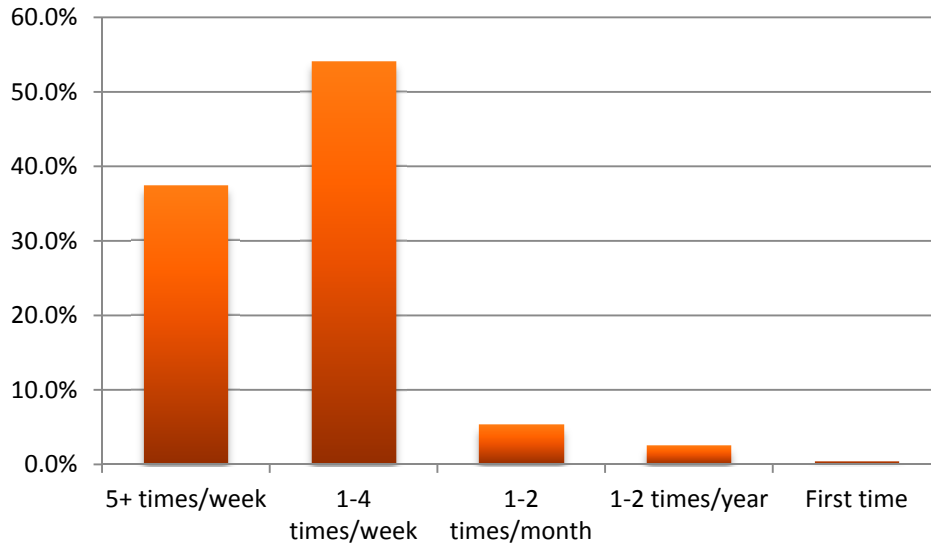
The survey was conducted through the website [www.surveymonkey.com](http://www.surveymonkey.com). The website enabled the creation of the survey questions and choices, the creation of a link for users to click to access the survey, and analysis of results. The survey was accessible through a web link and QR code that could be found on the handout. The online survey collected data from June 15, 2014 through June 26, 2014.

The survey consisted of 22 questions. In addition to a couple open-ended questions, there were also opportunities to submit written comments. A total of 205 surveys were submitted. The following pages detail the results for each question, including tables, graphs, and a listing of written comments. All written comments were included in this report, with the exception of comments such as “N/A” or “I don’t know”. It should be noted that the survey results were not tested for statistical significance. Therefore, the information referred to in the report may be skewed due to the sample size and the number of respondents in each age group. However, the survey does identify several trends in trail usage which can be beneficial to park managers, trail planners, and tourism organizations in the metropolitan area.

## Survey Findings

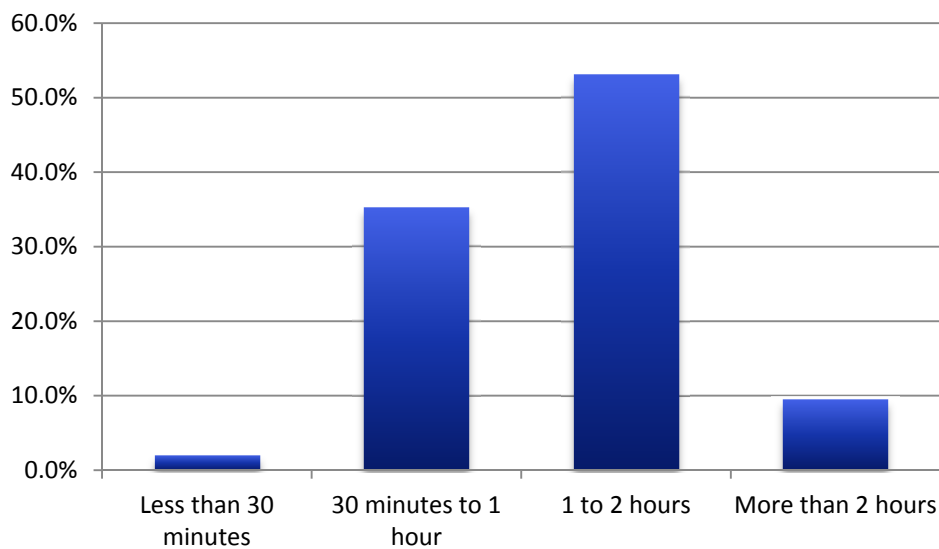
### How often do you use the metropolitan trail system?

The majority of survey responders indicated frequent trail use with one to four visits per week. There were very few infrequent trail users.



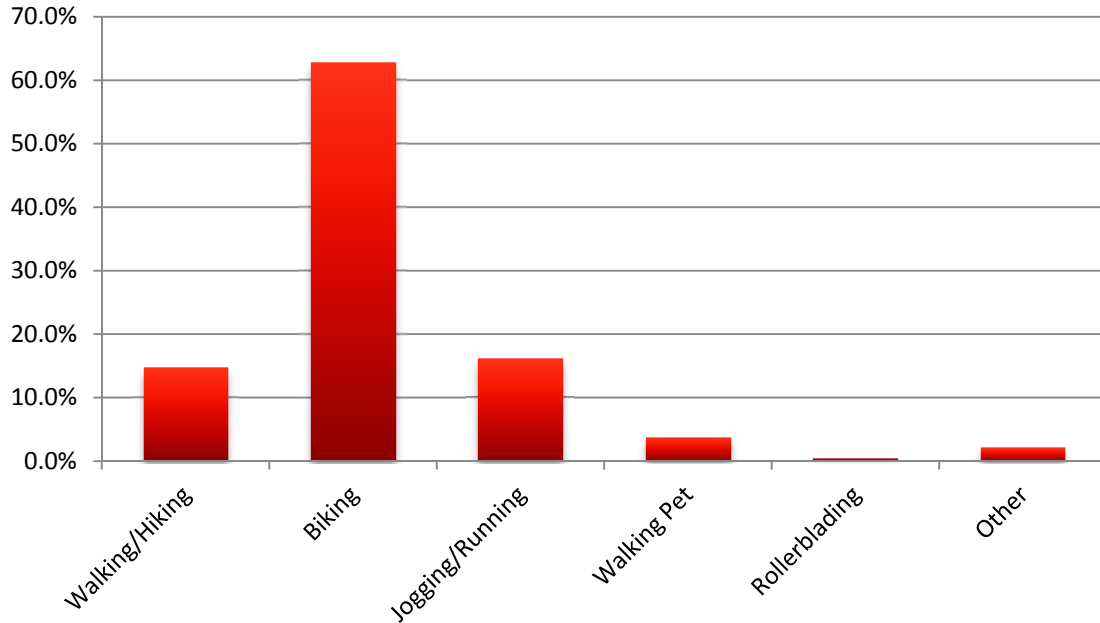
### How much time do you generally spend on the trails?

88.5 percent of survey respondents indicated trail visits of between 30 minutes and 2 hours. A small percentage of trail users responded that they generally use the trail system for brief periods of time.



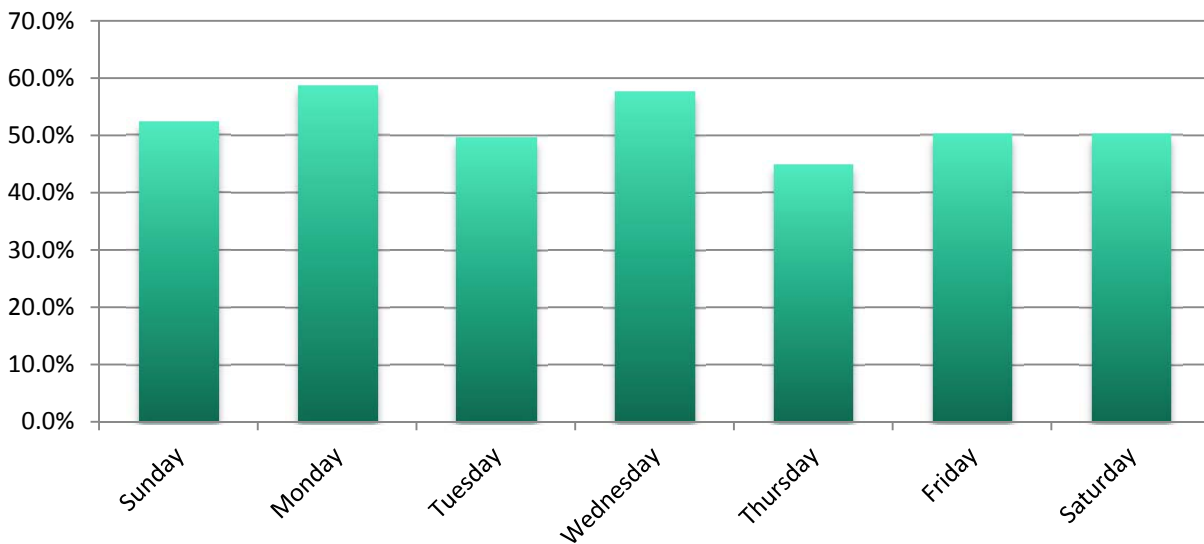
### What is your primary activity along the trails?

With nearly 63 percent of the total response, the majority of survey respondents indicated that their primary activity on the trail system is biking. Write-in responses for “other” included bird watching, people watching, and an even amount between jogging and biking.



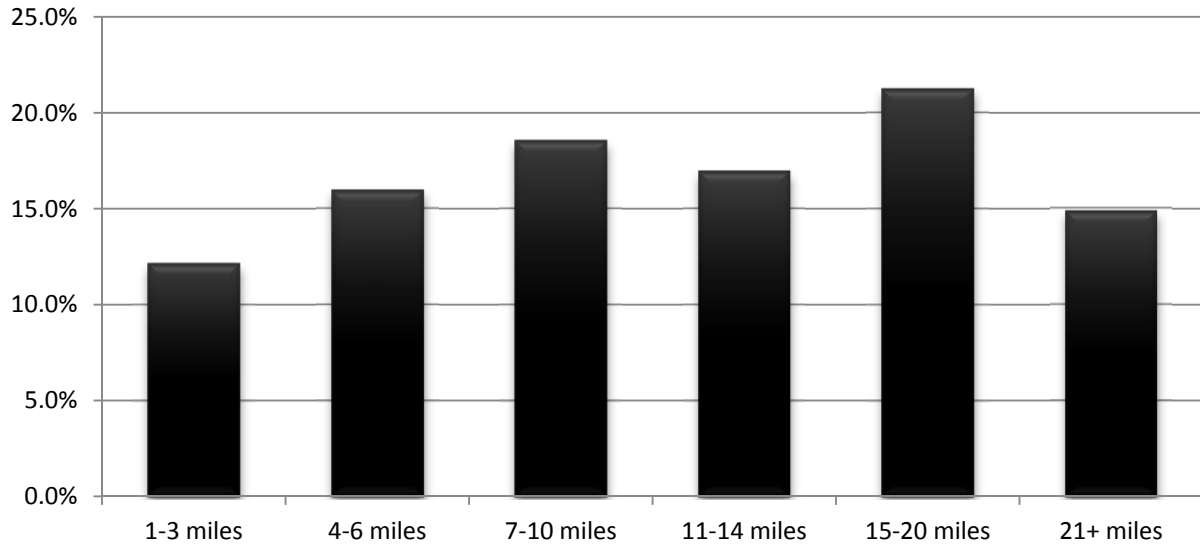
### From Sunday, June 15 to Saturday, June 21, what day(s) did you use the trail system?

Responses to this question indicate consistent use of the trail network throughout the week. Thursday saw the least amount of trail usage during the week with only 45 percent of respondents using the trail system that day. This is likely due to the prolonged periods of rain and high wind speeds experienced throughout the day.



### What was your estimated roundtrip mileage on the trail network today?

36.2 percent of survey respondents indicated that they traveled 15+ miles on the trail network. One survey respondent noted that they use the trail network to travel west, south, and north of Cedar Falls to avoid urban traffic and stop lights. Another user stated that they would have traveled further on the trail system, but flood waters covered some of the trails.



### In regards to the metropolitan trail network, how satisfied are you?

As can be seen from the chart below, survey respondents are extremely satisfied with the miles of trail available in the Cedar Valley. Additionally, the majority of respondents are satisfied with trail surface conditions, trail signage, trail access and parking, benches and seating, and safety.

	Extremely Unsatisfied	Unsatisfied	Neutral	Satisfied	Extremely Satisfied	Rating Average
Miles of trail available	2	5	3	70	<b>108</b>	4.47
Trail surface conditions	3	9	21	<b>118</b>	37	3.94
Trail signage	6	22	41	<b>92</b>	23	3.57
Trail access and parking	2	3	23	<b>112</b>	47	4.06
Benches/seating	2	4	25	<b>105</b>	48	4.05
Safety	2	5	24	<b>113</b>	41	4.01

### If you had \$100 to spend, how would you distribute it among these project types?

With nearly 41 percent of the total response, it is evident that maintenance of the existing trail network is important to survey respondents. This coincides with the written comments received for the following question below.

	Response Average	Response Total
Maintenance of existing trail network	\$49.16	\$7,473
Construction of new hard-surfaced trails	\$33.66	\$3,568
Adding on-road bicycle accommodations (bike lanes, sharrows)	\$22.64	\$1,585
Improve aesthetics along trail network (benches, landscaping, lighting)	\$14.93	\$1,000
Improve signage along the trail network (directions, landmarks, mileage)	\$22.95	\$1,951
Improve trailhead amenities (parking, drinking fountains, restrooms, shelters/picnic areas)	\$27.79	\$2,723

### What could be done to enhance your experience on the trail network?

There were 137 written comments. Common themes in the comments included signage/amenities, maintenance/infrastructure, access/expansion, and safety/education.

#### Signage/Amenities

- 1-2 more available out houses for bathroom use.
- More signs. More drinking fountains. More trails on and off cement.
- In my opinion, the trail signage is more educational than informative (if that makes sense). My personal interest re signage is simple; what trail is this, perhaps mileage to next trail junction. For visitors to the trails, I have a sense that the signs are appreciated more.
- More drinking fountains
- Improve on signage so you don't have to look at a map just to know the trail you are on and where its heading. Also a communication with local news to inform what trail conditions are, with flooding maintenance etc...
- More maps on the trails, showing where I am, and connections to other trails.
- More markers such as mileage.
- Keep them primitive and simple. No signage. Stay away!
- Few more bathroom options - on long runs and bike rides it can be hard to find them if you aren't in George Wyth or Downtown CF
- The trail network is woefully lacking in drinking fountains. As a runner, this would be the #1 enhancement that could be made to the trail. In my childhood hometown of Bloomington, IL, there is an extensive trail network that also has a great number of water fountains on the trail. I would love to see this replicated in Cedar Falls
- Get rid of the excess STOP signs. If traffic control signage is necessary, a YIELD sign will be all that is needed nearly every time. The STOP signs are routinely ignored by bikers and pedestrians and that is a bad precedent.
- More signs would be a big help. Whenever I'm trying a new trail I like to have signs along the way that tell me where I can go from there and how far I've gone.
- Signs or better maps to know where to go. Better crossing at viking and hwy 58. Signs a bit further out when work is being done instead of right before.

14. There are odd turns at some of the trail connections, such as Mullan Avenue at the east bank of Cedar River, and also the northern portion of the Sergeant Road Trail between Falls Avenue and University Avenue. Also, there is a lack of wayfinding signage, particularly on the west side of downtown Waterloo, for example at Jefferson Street at Westfield Avenue. One time, I ended up on the Sergeant Road Trail because I didn't notice the right turn across the street to the riverfront trail. In addition, I haven't noticed any signage delineating the American Discovery Trail. If you were walking or biking along Washington Avenue downtown, for example, you would never know you're on the American Discovery Trail and probably wouldn't know how to connect to the surrounding trail network.
15. Dog walkers don't observe leash laws causing accidents. Three that I have been in or witnessed, two causing injury. Mileage signs would be nice although a GPS watch serves the purpose
16. Have more bathrooms
17. A few more signs indicating what street the trail is intersecting--like the intersection of the trail underpass and Greenhill Road.
18. More drinking fountains! Especially around Hartman. There are also no water fountains between George Wyth State Park and Exchange Park (4 miles) or between downtown Waterloo and Pfeiffer Springs Park (7 miles). I understand plumbing and water safety would be an issue, but it could be very safe on hot days.
19. Better signage, Des Moines has great signs
20. I like the idea of some lighting and more directional and mileage signs would be helpful. Maybe an emergency station in a few locations.
21. Increased lighting and fun aesthetic treatments would be nice.
22. Mile markers would be nice, along with restrooms
23. Plant more trees as windbreak and sound barrier along trails near highways and busy streets.
24. Not such steep hills on approaches. Better signs on 18th st. Where there is one way.
25. I think more lighting would make me feel safer to use the trails for later/earlier hours. I wish there were more signs pointing to major roads close by.
26. More signage in downtown Waterloo to know where the trail goes. Colder water at the drinking fountain in Pfeifer park.
27. Water stations
28. Restroom areas would be nice
29. More signage of bike etiquette, which would include, passing, safe distancing, etc.
30. Signage around Cedar Bend Park & George Wyth needs to be improved to keep snowmobilers off the trails in these areas. Also, enforcement of existing prohibitions against motor vehicles on trails needs to be enhanced.
31. The trails in Downtown on the West side need better signage to let you know where you are to go.
32. If something like emergency buttons/systems could be put on more of the trails, so if something were to happen it would be easy to get help.
33. More signage indicating miles to next location, plus posting etiquette rules on trails
34. Signage to let you know where you're at along the trail. Maybe change the stop signs to yield signs. I don't see many people stopping at the stop signs.
35. More restrooms
36. More Lighting would be great!
37. More bathrooms
38. More garbage/dog poop receptacles and restrooms. A lot of people don't pick up after their animals so maybe some signs to remind people it is illegal not to do so?!
39. Some of the trails can be dark and scary at night. Possibly add some lighting or emergency phones along the trail?
40. Source of water if possible.
41. CF does well with glass chard pickup, but the Waterloo sections need help. We bike with a broom and dust pan, using them often! More drinking water (that's a tough one)
42. Better signage. Ramps are too steep of incline.
43. More maps along the trail describing location and trail system
44. Interactive, online, user friendly map!
45. I could use more trails to ride on. The maps also need a lot of help. They aren't very in depth throughout the trails to give a good idea of where I am exactly. There could also be interactive maps online. Light through the trails would be nice for night traveling.
46. More maps along the trail and maps that are easier/clearer to read. What the trail truly needs, though, is a MUCH better ONLINE map. The current one is extremely difficult to read/understand. I would love to see a new one so I could explore new trails.
47. Better signs. Better signage, with mileage and points of interest



## Maintenance/Infrastructure

1. Making sure the maintenance that needs to be done is completed.
2. On sharp curves, reduce vegetation to improve safety
3. Figure out a way to keep the water off of it :-)
4. Better lane markings
5. Making the trails less susceptible to flooding (adding drainage culverts, especially through George Wyth)
6. I've ridden on the bike trails for several years, every week day back and forth to work, except for in the winter. The trails I take are good to go for me so I don't see the need for putting more tax payer dollars into the system. Quite honestly, I have traveled across Green Hill road many times without the tunnel under the bridge, so for my money, the bridge over 58 and the tunnel under Green Hill are a little much. I will admit that it is a nice ride through this section and I would consider it much safer for the casual family users through these sections. The only thing I can think that would benefit me is to dig a trench along the path to the south side of the Mayors bridge. This would possibly help keep the water from running over the path. There has been some grading for this during the construction, but when we have a lot of rain like recently, the water runs over the path. With the constant muck on the path from the water it creates a slick pathway. I had a pretty major spill coming through this section around the time that the bridge was completed and thankfully I was able to keep the bike up to shoot me off into the reeds where I had a head over hills experience. I embraced the weeds and getting soaked to the hardness of the pavement :-). I am now much more aware of the environment and slow down through the wet conditions.
7. Resurfacing parts of the trails. Some of them have a lot of bumps, etc
8. Clean flood and storm debris in a timely manner.
9. The trails are great. There are some areas that are bumpy/rough but I'm assuming the cost to smooth those areas would be prohibitive.
10. Fix wooden bridges some have holes, and bridge access is hard on tires
11. Repairing places that could be hazardous.
12. Our trails are top notch. Just keep up on maintenance. Some of the dirt trails aren't mowed enough in the summer time. Would also be great, to plow some of the trails in the winter time for winter running and walking.
13. Fix rough patches on existing trails. More drinking fountains, better restrooms at Big Woods Lake and Blackhawk Park
14. The trail between Evansdale and LaPorte City is getting rough and needs some work
15. There is a low spot in the trail south of the pedestrian bridge along hwy 58, that is always wet and slippery and underwater (near the nature preserve). It would be great if a bridge could be constructed there or the trail could be elevated there for safety purposes.
16. More cleanup events for the trails.
17. A little smoother trail around the George Wyth loop. Better bike crossings at roadways.
18. Better Drainage to mitigate water on the trails
19. Brush off the fallen tree branches after the storms.
20. Widen the earliest built trails
21. Maintenance mostly. Lots of good trails... Just keeping them in good shape is most important. Maybe some could be a little wider.
22. Keep up the good work maintaining our trails. We've travelled all over the USA, and our trails are one of the best we've seen. Great job.
23. Some trails really need maintenance.
24. Guard rails on the south trail that crosses Hwy 63 to Park Ave. in Waterloo I can't take my kids that way because of the drop off yet would nice with the Splash pad, library, and Waterloo Center of the Arts right there.
25. The trail surface is getting pretty deteriorated in more and more places. I would spend 100% on resurfacing where needed
26. Better drainage when trails are flooded.
27. Keep trail clear of debris as much as possible.
28. In the winter time it would be nice if the trails especially along Green Hill road were not buried in snow. The plows pile it up on the corners and onto the trails. I would even volunteer to help keep the trails free of snow
29. There are places that the trail collects water, such as underneath 218 bridge. These should be a focus for a permanent solution. Also, the trail keeps washing out.
30. It's great. Just don't let it deteriorate.
31. Sweep trails oftener (especially Waterloo)
32. Cleaning trail off after storms
33. Make improvements to the older trails - part of George Wyth is in bad condition.

34. There are shrubs/trees that have growth into the pathway that obstruct the path as well as obstructing the view. It seems that sending someone around, even volunteers, to trim and clear this growth more regularly should not be that difficult.
35. Blacktop needed
36. Attention needs to be paid on maintaining our existing trails from repairing to sweeping. We would like the main commuting trails cleared of snow in the winter. Several trail & busy intersections need buttons for the lights - many lights won't change for cyclists. Branches need to be trimmed that overhang the trails.
37. Some trails are in need of maintenance. University avenue needs to be made friendly to walkers and bikers.
38. Some of the bridges need to be relayed as they are getting rough in spots. Also some areas of the trail in cedar falls have gravel patching holes that would be nice if they were filled with asphalt or cement
39. Overall maintenance is very good. Just continue to mow along side of trails and keep debris cleaned off trails. Doing a good job of it now, but just continue.
40. Maintain the surface
41. 1) At certain intersections with traffic lights, the crosswalk button is not adjacent to the trail. The trail user must leave the trail to activate the button. This deters the trail user from activating the crosswalk button. The crosswalk button needs to be located next to the trail or the trail must be routed next to the crosswalk button. 2) At road intersections with traffic lights, the traffic sensors will not sense bicycles and the lights will not change unless additional traffic is present. The cities need to investigate and install alternate traffic sensors that are sensitive to bicycles.
42. Improvements along the stretch of path that starts as you enter George Wyth Park (from the bike bridge) all the way to where it turns to concrete.
43. Some of the trails need repaved and more signs/maps would help with estimates of miles completed. Maybe a phone app that tracked you.

#### Access/Expansion

1. More access to neighborhood of over 20 houses. Took a while to build access to the Viking Hills homes and they are right next to it.
2. Better access to the trails from Waterloo to Cedar Falls
3. We parked at Prairie Lakes Park and the access to the trail from the top parking lot was taken away with the construction. They might not be done but it would be nice to have a path from the lot to the trail.
4. Expand connections to the Readlyn and Waverly trail.
5. Safety at Greenhill & Viking Rd. Maybe program the lights for all stop when crosswalk button is pushed. Marked route through CF Industrial Pk connecting Prairie Lakes with Ridgeway / Greenbelt. Construction / extension of trail along Hudson Rd in CF, between 1st Street and 12th. Widen trail on Hudson Rd from University Ave to Viking Rd. Extension of Shaulis Rd trail to create a southern route to CVNT. Marked route / trail to connect with Waverly - Readlyn trail. Marked trail / bike route from center of Evansdale to NE Industrial Park. The current trail is on the
6. Build a trail so that I could ride to work and the grocery store without riding on major roads.
7. Add more trails
8. Could get some of the trails to connect to other trails or on road bike lanes. For example: Would be good if was some signage to use the sidewalk past Cattle Congress to get between trails in that area.
9. More integration of trails with streets/roads, more sharrows and other indications to motorists that the streets ARE for bikes as well as cars. More public acceptance of utilitarian biking on streets (commuting, errands, etc)
10. More dirt trails
11. More interconnections
12. I would like to see a trail run to PEC. A section of trail between Greenhill and Ridgeway along Cedar Heights Dr would be nice.
13. It would be nice to see an updated map. More routes to complete loops around town without having to back track. I would rather see more trails and deal with University Ave. in its current condition, but making University Ave. a "complete streets" concept would be the ultimate.
14. Access between Waterloo and Cedar Falls without having to take side streets.
15. More trails
16. Better water control and more trails
17. Please add asphalt type bike lanes alongside the existing road ways, NOT those bogus "share the road" bike signs. They don't mean anything to many motorists. Doing this between cities like Cedar Falls to Denver or Cedar Falls to Janesville would be very helpful.
18. More of them, they're great.
19. Add trails to the area I live. Hammond Ave and Lois Lane by the Crossroads Waterloo

20. Improve trail use by Linking trail to shopping locations like huber, target, etc.
21. Having all trail systems linking up with each other, navigating through downtown waterloo is a nightmare, maybe some more direction signage and drinking fountains
22. Connect the trail from the Casino to the CV Nature Trail. I understand that plans are already in place to connect from hwy 21 to the casino.
23. More trails, widen older trails, more drinking fountains, better public awareness of trail etiquette.
24. Have continuous trails, not just a short trail here and a short trail there - make sure they continue. This a big problem near UNI.

### Safety/Education

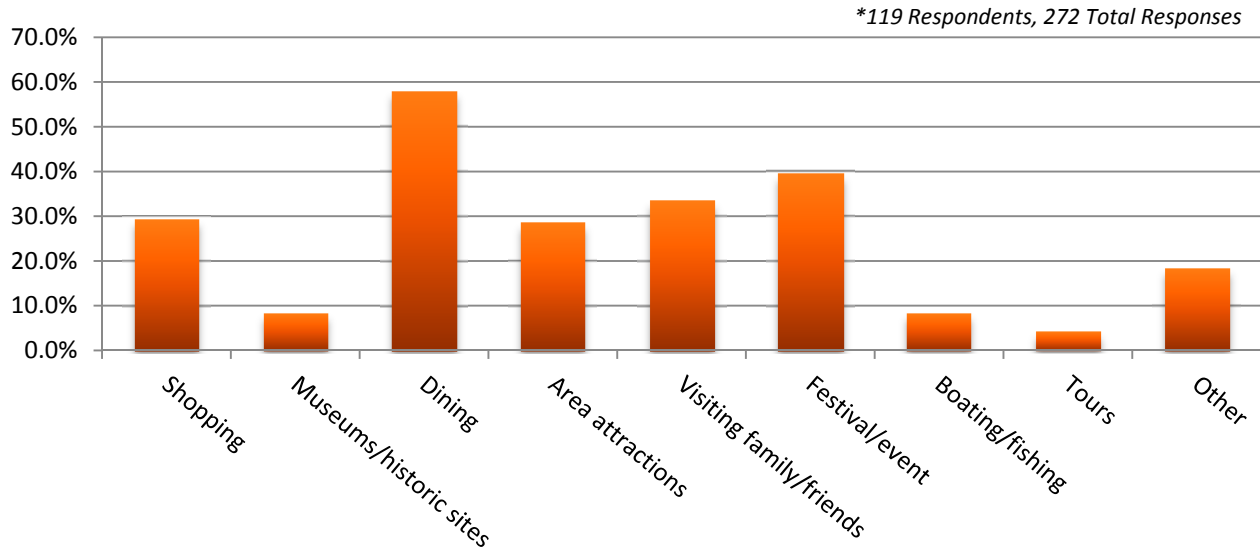
1. Classes for new bikers and young bikers to improve safety on the trails.
2. Safety
3. Bikers need to learn to "Announce when they are passing" I know there are some signs out there but I have come so close so often to an unannounced biker on the trails. By the time I hear their chains and turn around to look, I almost step into their path because they are upon me by then. Otherwise, I love the trails and our trail system.
4. Emphasis trail network as multi-use in marketing not just market a bike trail' 60% of bike riders approaching from behind do not announce: continuous education might help increase responsibility; walkers did to respond to the announcement (raising hand, saying thank you)
5. More patrolling by qualified person(s). Sometimes there are some questionable people on the trails.
6. Slow down the extremely fast riders. They need to be on road if they want to ride that fast. Dangerous for other users
7. I feel it is great already and lets not add bike lanes to busy streets
8. Wish bicyclists would announce when passing walkers
9. Reminders to rude users that they shouldn't take the entire width of the trail when walking and talking with friends. reminders to roller bladers that rolling down the middle of the trail, earbuds blasting, taking your half out of the middle is dangerous. reminders that the trail isn't a fishing pier and that setting up your lounge chairs, radios, baby cribs etc. is just plain rude. don't let your kids rin wild on the trail.
10. Teaching people "rules of the trails" announce when passing, walking on the correct side of the trail, move to the side when someone is passing, etc.

### Other

1. The trails are mostly concrete which is good for bikers but it really hard on the knees for runners. High impact condensed rubber would be nice though is not conducive to skaters. Trail maps were nice. This was my first time running the trails because I am from out of town and I did not have any idea of where I was going to end up, if the path was a thru path or if it dead ended in someone's back yard.
2. Like it as is.
3. Continue doing what you are doing
4. Try not to close more than 2 trails at the same time
5. I cannot think of anything--I appreciate them as is
6. Keep people off the roads and get them on our wonderful trails!
7. I'm satisfied, I really enjoy my walk along the trail.
8. Keep birds from chasing/hovering between El Dorado Heights and Blain's
9. Not much really, it works great for my use (running and some social biking)
10. More enforcement of litter, dog leash ordinances, and keeping walkers/runners off the x-c ski trails in the winter.
11. We have great trails
12. Really I have no complaints
13. The trash receptacles needed to be emptied more often along the river in downtown Cedar Falls

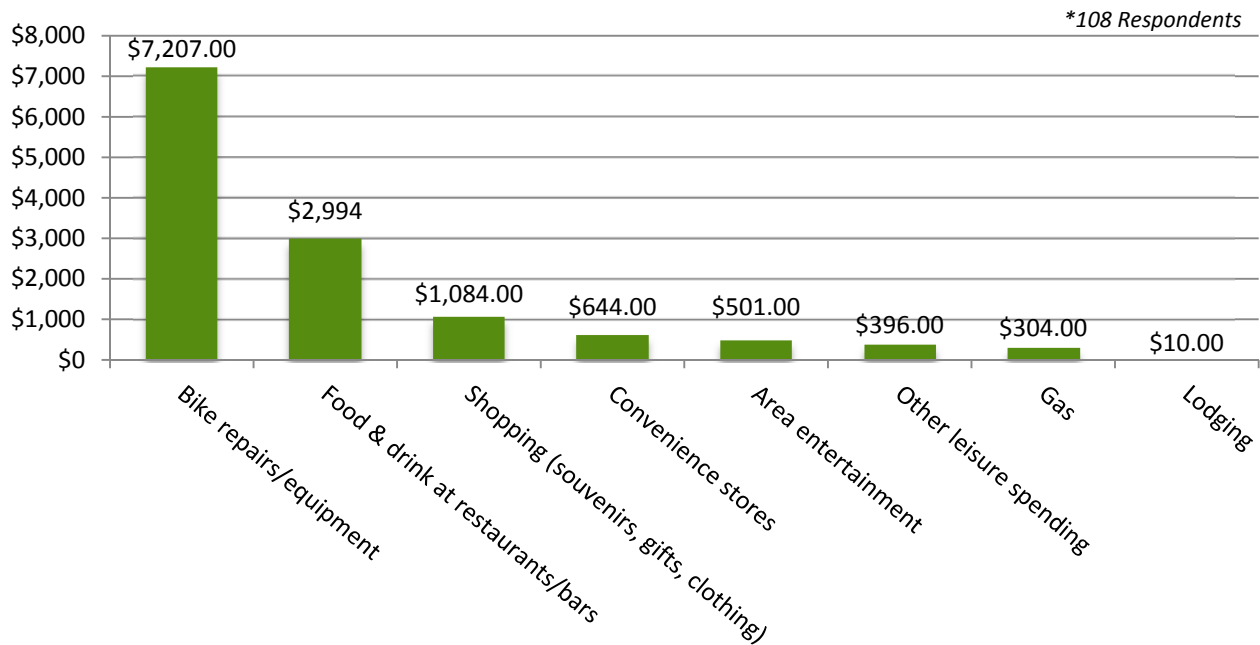
### Did you participate in any of the following activities while using the trail network?

A significant number of survey respondents partook in activities in the metropolitan area while using the trail system. With a response rate of 58 percent, dining was the most popular activity noted by survey respondents. Write-in responses for “other” included visiting a bar, commuting, nature viewing, running errands, and partaking in group rides.



### How much did you spend while using the trail network today?

Trail users that responded to the survey spent a significant amount of money in the metropolitan area. A total of \$13,140 was spent by survey respondents, of which 54.8 percent was on bike repairs and equipment and 22.8 percent on food and drink at restaurants and bars.

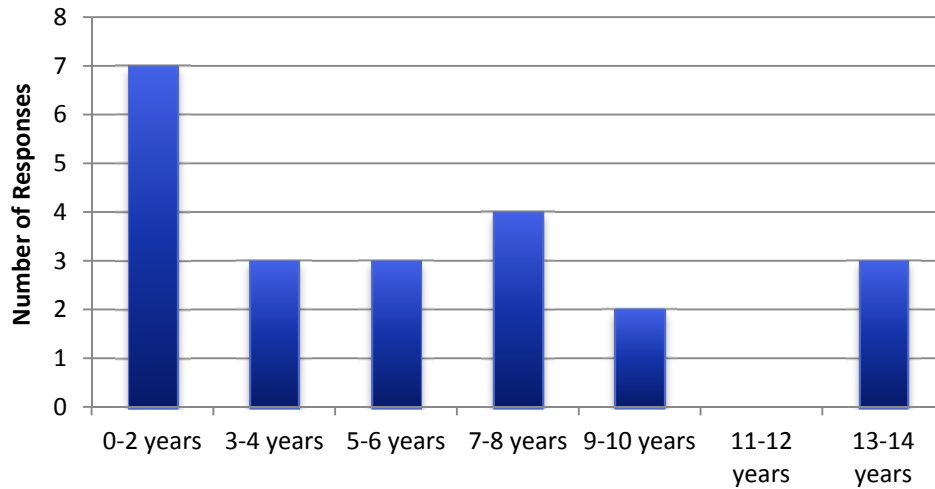


**Do you live in the Waterloo/Cedar Falls metropolitan area? If not, was this an overnight trip?**

Only ten trail users who completed the online survey reside outside of the Waterloo/Cedar Falls area, of which only three stayed overnight. Two survey respondents stayed with a friend or relative while the third tent camped. The duration of stay was evenly distributed between one, four, and seven or more nights. Responses to how out-of-town users heard about the metropolitan trail included the internet, familiarity with the trail network from attendance at the University of Northern Iowa, and randomly coming across the trail system.

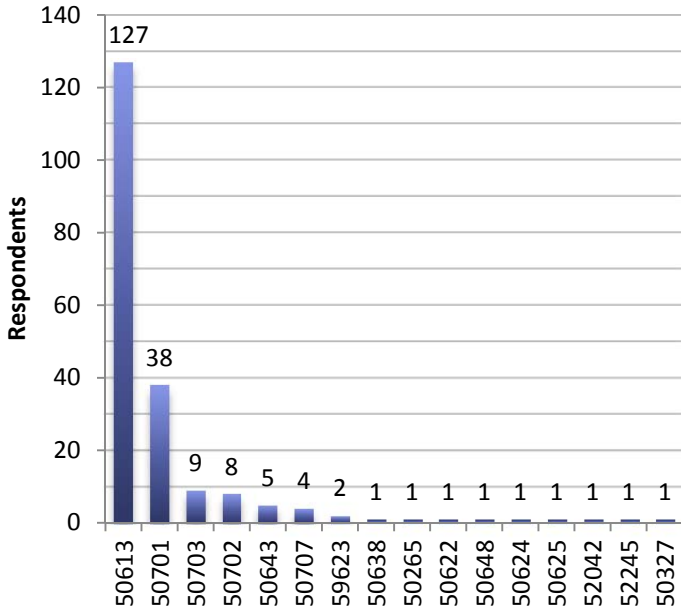
**Where any children under the age of 15 with you today?**

Only a small percentage of trail users were accompanied by children. Fewer than nine percent of survey respondents indicated they were with children under the age of fifteen. This follows logically from the prevalence of higher age groups surveyed (see age data below). The ages and number of children on the trail network were as follows:

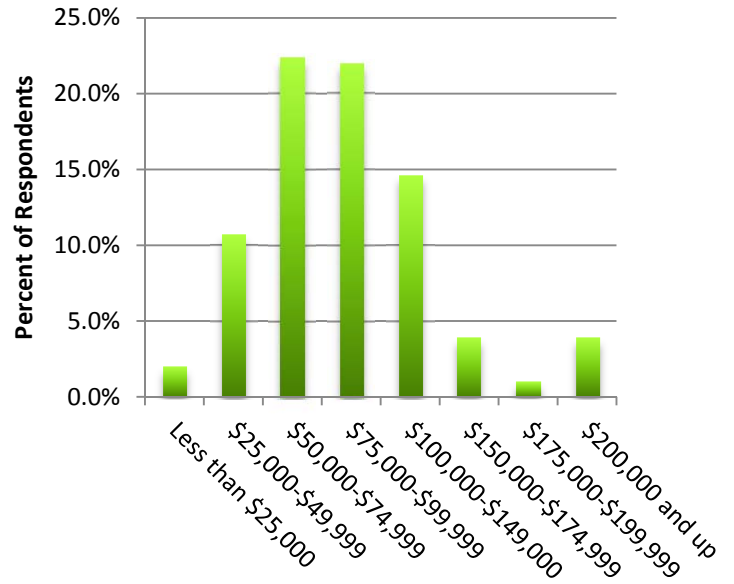


# Demographics

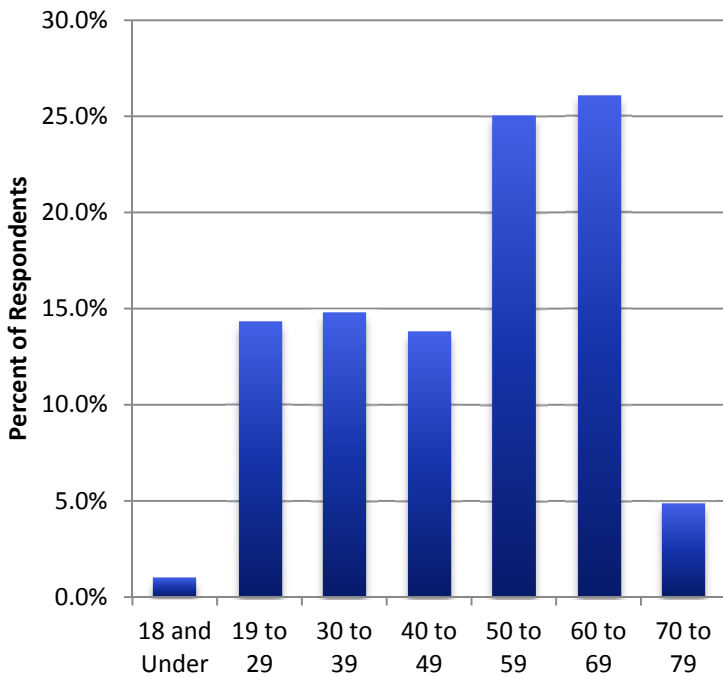
### Zip Code - Home



### Approximate Annual Household Income



### Age



### Gender

