

APPENDIX A

Crystal Lake Park Visitor Counts 2015

Crystal Lake Park Visitors' Counts

Draft Report

August 2015

**Champaign Urbana Urbanized Area Transportation Study
(CUUATS)**

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1.0 Introduction

The Urbana Park District retained the Champaign County Regional Planning Commission (CCRPC) to collect park facilities users' data at Crystal Lake Park on a weekday and a weekend day (Saturday). Data collection days and duration were selected with consultation with Urbana Park District officials. Table 1 shows detailed information on data collection days.

Table 1: Data Collection Days

Day	Date	Duration	Weather Condition	Highest Temperature (F)
Weekday	7/23/2015	6AM-8PM	Sunny	83
Weekend Day	8/1/2015	6AM-8PM	Sunny	84

1.1 Data Collection Locations and Procedures

Park visitors' data was collected at four different locations considering availability, location, and access to park facilities. Moreover, sidewalk activities (the number of walkers and bikers using the sidewalk) information was also collected on the sidewalk along Broadway Avenue.

Park visitors' data was collected using both manual observers and video camera. Figure 1 shows the data collection locations and methods. Location 1 is the access point for the newly built Crystal Lake Family Aquatic Center and Anita Purves Nature Center. Locations 2 and 4 provide access to main park facilities. Location 3 provides access to the Boat House. Location V2 provides access to the park through shared-use paths only for pedestrians and bicyclists.

Figure 1: Data Collection Locations



Table 2 shows detailed information on the types of data collected at each location.

Table 2: Data Collection Location Details

Data Collection Location	Types of Data Collected	Data Collection Method
Location 1	Pedestrian, bicyclists, motor vehicles, number of people inside motor vehicles	Manual
Location 2	Pedestrian, bicyclists, motor vehicles, number of people inside motor vehicles	Manual
Location 3	Pedestrian, bicyclists, motor vehicles, number of people inside motor vehicles	Manual
Location 4	Pedestrian, bicyclists, motor vehicles, number of people inside motor vehicles	Manual
Location V1	Pedestrian, bicyclists	Video Camera
Location V2	Pedestrian, bicyclists	Video Camera

Only one video camera unit was used for video data collection. As a result, video data collection dates at locations V1 and V2 were different than the other locations. Weekday count at location V1 was completed on Thursday, July 30, 2015 and weekend count at location V2 was completed on Saturday, August 8, 2015.

2.0 Park Visitor Data Analysis

Visitors entering into park facilities were recorded at locations 1, 2, 3, 4, and V2. At location V1, the number of pedestrians and bicyclists using the sidewalk were recorded. Table 3 shows the total number of park facilities visitors by mode on weekday and weekend days.

Table 3: Total Park Visitors by Locations

Weekday (Thursday)				
Count Location	Mode of Transportation			Total
	Walking	Bicycling	Motor Vehicle*	
Location 1	129	32	1,253	1,414
Location 2	26	15	325	366
Location 3	35	16	110	161
Location 4	85	12	455	552
Location V2	64	20		84
Total	339	95	2,143	2,577
Weekend (Saturday)				
Count Location	Mode of Transportation			Total
	Walking	Bicycling	Motor Vehicle	
Location 1	50	13	1,153	1,216
Location 2	31	5	173	209
Location 3	54	10	170	234
Location 4	53	25	511	589
Location V2	56	7		63
Total	244	60	2,007	2,311

*includes drivers and passengers

As can be seen in Table 3, the total number of visitors was higher on weekday than weekend day. Also, location 1 had the highest number of park facilities visitors. Figure 2 and Figure 3 show travel mode shares for park visitors at different locations on weekday and weekend day respectively.

As can be seen in Figure 2 and Figure 3, the majority of the visitors used motor vehicles followed by walking and bicycling.

Figure 2: Visitors' Travel Modes on Weekday

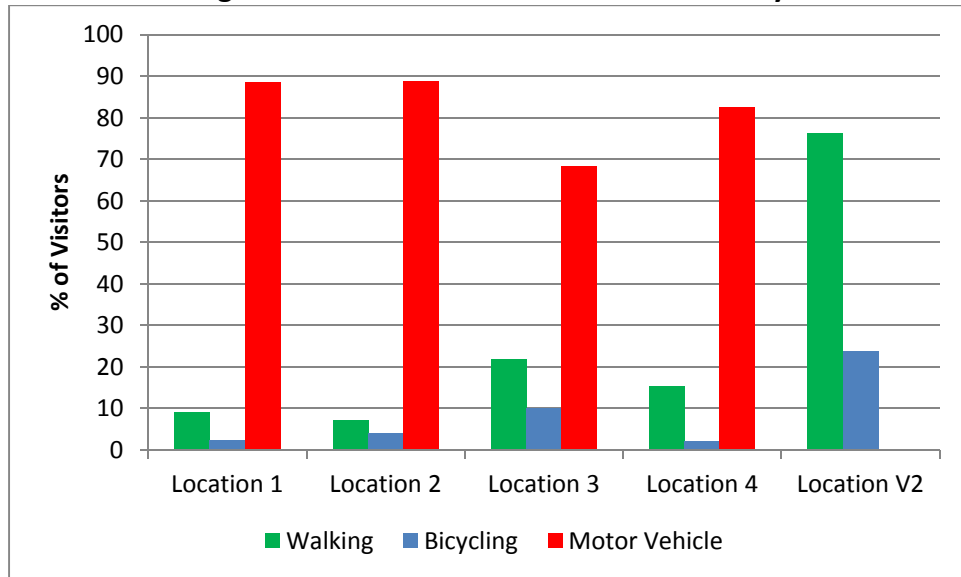
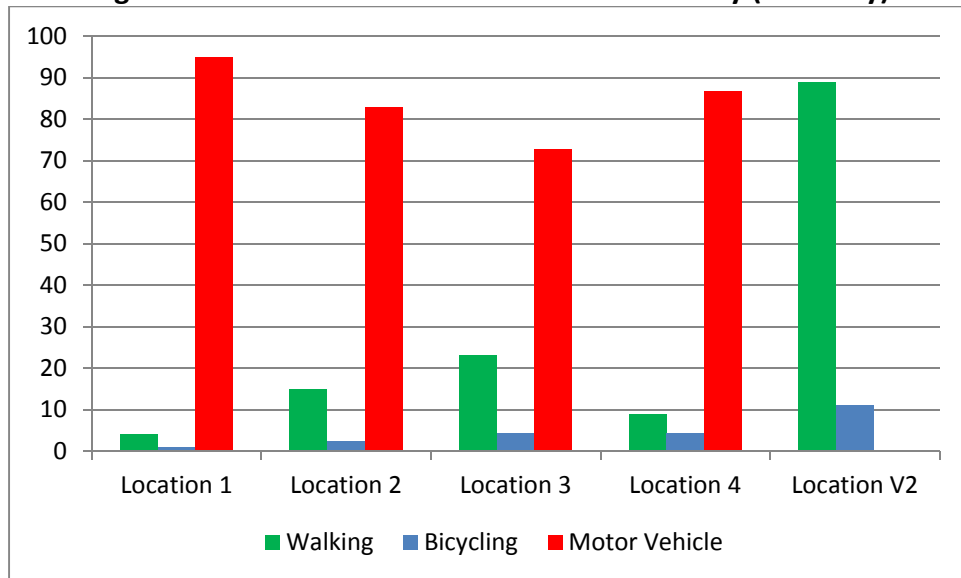


Figure 3: Visitors' Travel Modes on Weekend Day (Saturday)



2.1 Location 1

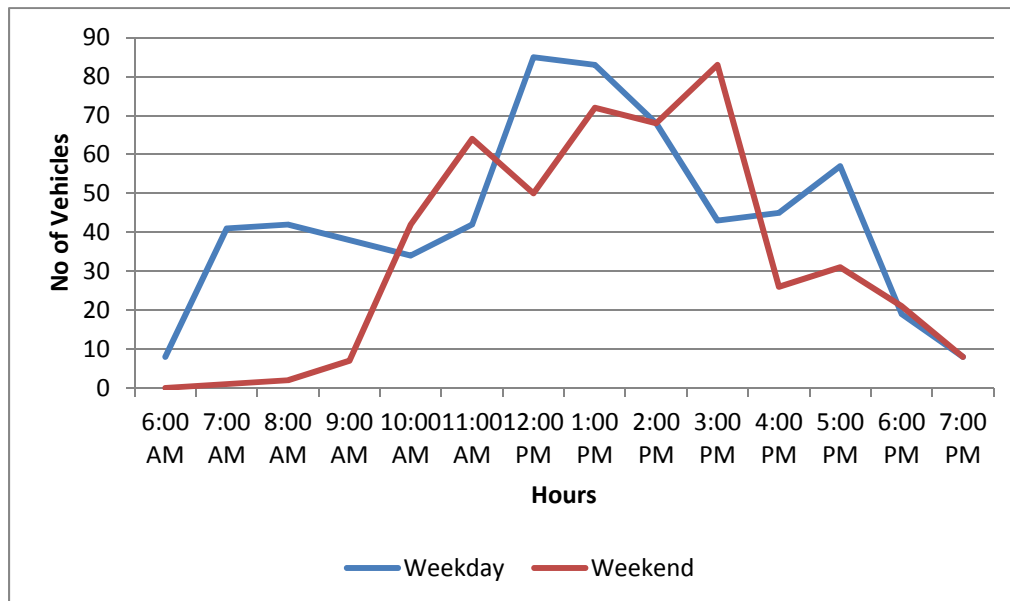
Location 1 provides access to the Crystal Lake Family Aquatic Center and Anita Purves Nature Center. Table 4 and Figure 4 show hourly flow variations for visitors entering by motor vehicle at this location.

Table 4: Visitors using Motor Vehicles at Location 1

Time Interval	Weekday			Weekend (Saturday)		
	Vehicles	Passengers *	Pass/Veh.	Vehicles	Passengers *	Pass/Veh.
6AM-7AM	8	10	1.25	0	0	0.00
7AM-8AM	41	66	1.61	1	1	1.00
8AM-9AM	42	82	1.95	2	2	1.00
9AM-10AM	38	78	2.05	7	7	1.00
10AM-11AM	34	60	1.76	42	71	1.69
11AM-12PM	42	62	1.48	64	153	2.39
12PM-1PM	85	223	2.62	50	127	2.54
1PM-2PM	83	199	2.40	72	176	2.44
2PM-3PM	68	153	2.25	68	174	2.56
3PM-4PM	43	82	1.91	83	253	3.05
4PM-5PM	45	85	1.89	26	61	2.35
5PM-6PM	57	98	1.72	31	75	2.42
6PM-7PM	19	41	2.16	21	40	1.90
7PM-8PM	8	14	1.75	8	13	1.63
Total	613	1,253	2.04	475	1,153	2.43

* Including vehicle drivers

Figure 4: Hourly In-Flow of Motor Vehicles at Location 1



As can be seen in Figure 4, the highest number of visitors using motor vehicles entered between 12 PM and 1 PM on weekday and between 3 PM and 4 PM on weekend day.

Figure 5 and Figure 6 show the number of pedestrians and bicyclists entering into park facilities using location 1 during weekday and weekend day respectively.

Figure 5: Pedestrian and Bicyclist Inflow at Location 1 on Weekday

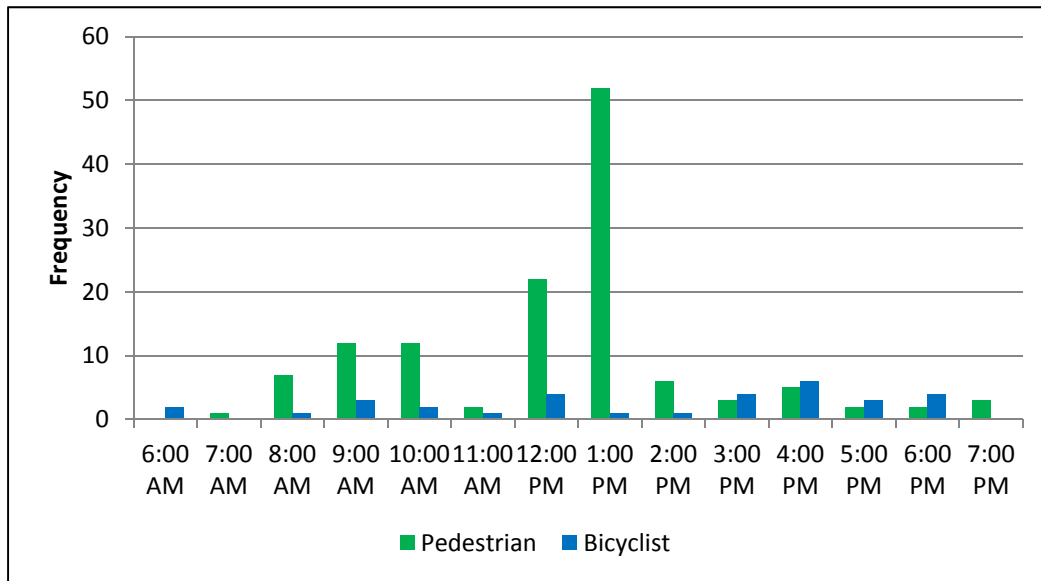
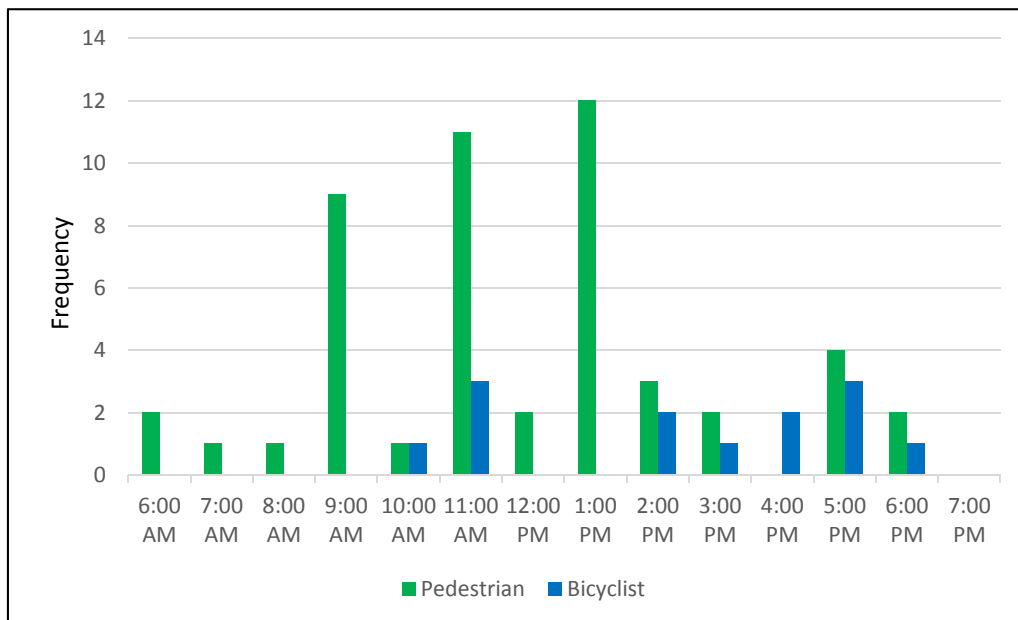


Figure 6: Pedestrian and Bicyclist Inflow at Location 1 on Weekend (Saturday)



As can be seen in Figures 5 and 6 number of park visitors using a bicycle as travel mode was very few. Pedestrians entering park facilities peaked between 1PM and 2 PM for both weekday and weekend day.

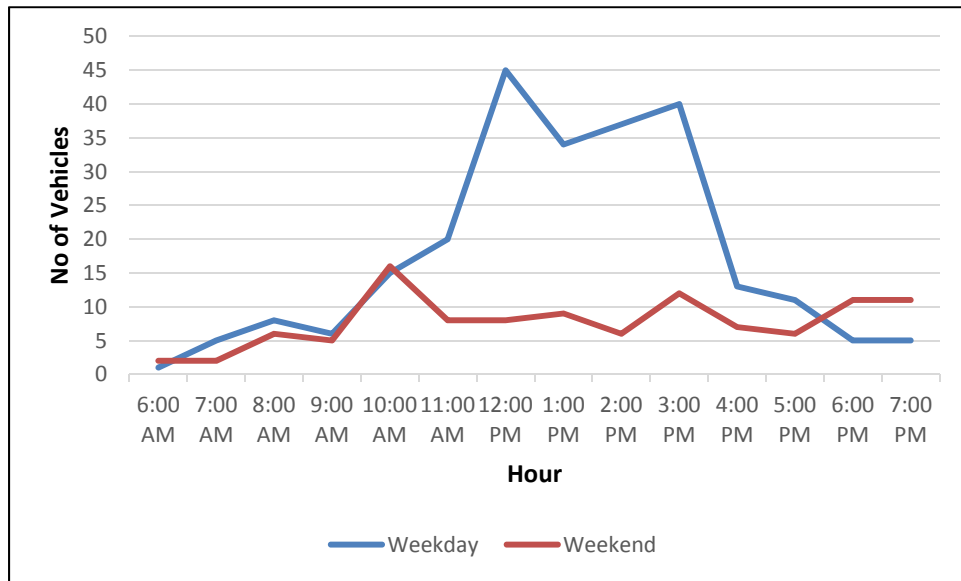
2.2 Location 2

Location 2 provides access to park facilities from north. Table 5 and Figure 7 show hourly flow variations for visitors entering by motor vehicles at this location.

Table 5: Visitors Using Motor Vehicles at Location 2

Time Interval	Weekday			Saturday		
	Vehicles	Passengers	Pass/Veh.	Vehicles	Passengers	Pass/Veh.
6AM-7AM	1	1	1.00	2	3	1.50
7AM-8AM	5	5	1.00	2	2	1.00
8AM-9AM	8	10	1.25	6	9	1.50
9AM-10AM	6	6	1.00	5	6	1.20
10AM-11AM	15	30	2.00	16	20	1.25
11AM-12PM	20	20	1.00	8	15	1.88
12PM-1PM	45	61	1.36	8	12	1.50
1PM-2PM	34	43	1.26	9	15	1.67
2PM-3PM	37	47	1.27	6	8	1.33
3PM-4PM	40	55	1.38	12	15	1.25
4PM-5PM	13	17	1.31	7	9	1.29
5PM-6PM	11	16	1.45	6	13	2.17
6PM-7PM	5	5	1.00	11	30	2.73
7PM-8PM	5	9	1.80	11	16	1.45
Total	245	325	1.33	109	173	1.59

Figure 7: Hourly Inflow of Motor Vehicles at Location 2



As can be seen in Table 5 and Figure 7, the number of park visitors using motor vehicles at location 2 was much lower during the weekend than weekday.

Figure 8 and Figure 9 show number of pedestrians and bicyclists entering into park facilities using location 2 during weekday and weekend day respectively.

Figure 8: Pedestrian and Bicyclist Inflow at Location 2 on Weekday

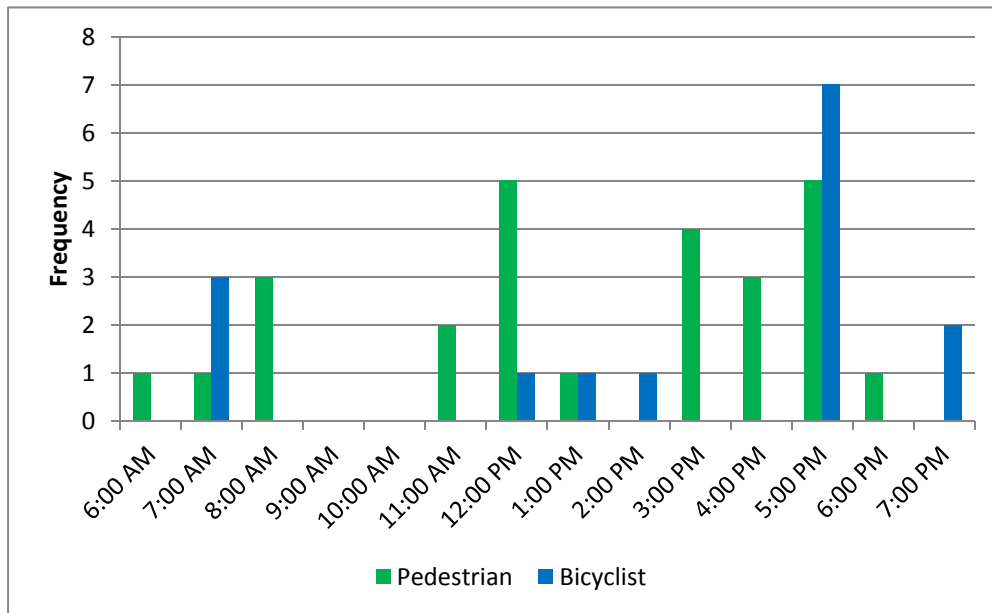
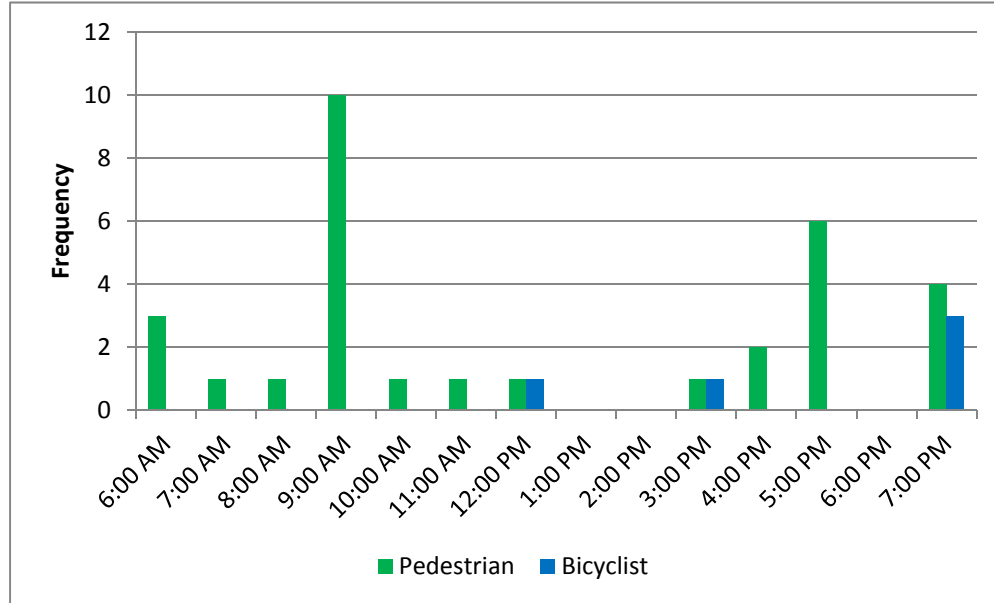


Figure 9: Pedestrian and Bicyclist Inflow at Location 2 on Weekend (Saturday)



As can be seen in Figure 8 and Figure 9, at location 2, the number of pedestrians and bicyclists visiting the park facilities were low.

2.3 Location 3

Location 3 provides access to the Boat House. Park trails can also be accessed through this location. Table 6 and Figure 10 show hourly flow variations for visitors entering by motor vehicle at this location.

As can be seen in Table 6 and Figure 10, the number of visitors using motor vehicles at Location 3 was higher during weekend day than weekday.

Table 6: Visitors Using Motor Vehicles at Location 3

Time Interval	Weekday			Saturday		
	Vehicles	Passengers	Pass/Veh.	Vehicles	Passengers	Pass/Veh.
6AM-7AM	2	2	1.00	2	3	1.50
7AM-8AM	4	6	1.50	4	5	1.25
8AM-9AM	1	1	1.00	4	4	1.00
9AM-10AM	1	1	1.00	7	14	2.00
10AM-11AM	1	3	3.00	3	6	2.00
11AM-12PM	8	10	1.25	7	14	2.00
12PM-1PM	12	17	1.42	5	11	2.20
1PM-2PM	7	10	1.43	12	22	1.83
2PM-3PM	7	7	1.00	9	14	1.56
3PM-4PM	7	10	1.43	9	12	1.33
4PM-5PM	3	6	2.00	12	25	2.08
5PM-6PM	5	11	2.20	7	12	1.71
6PM-7PM	7	12	1.71	12	20	1.67
7PM-8PM	8	14	1.75	5	8	1.60
Total	73	110	1.51	98	170	1.73

Figure 10: Hourly Inflow of Motor Vehicles at Location 3

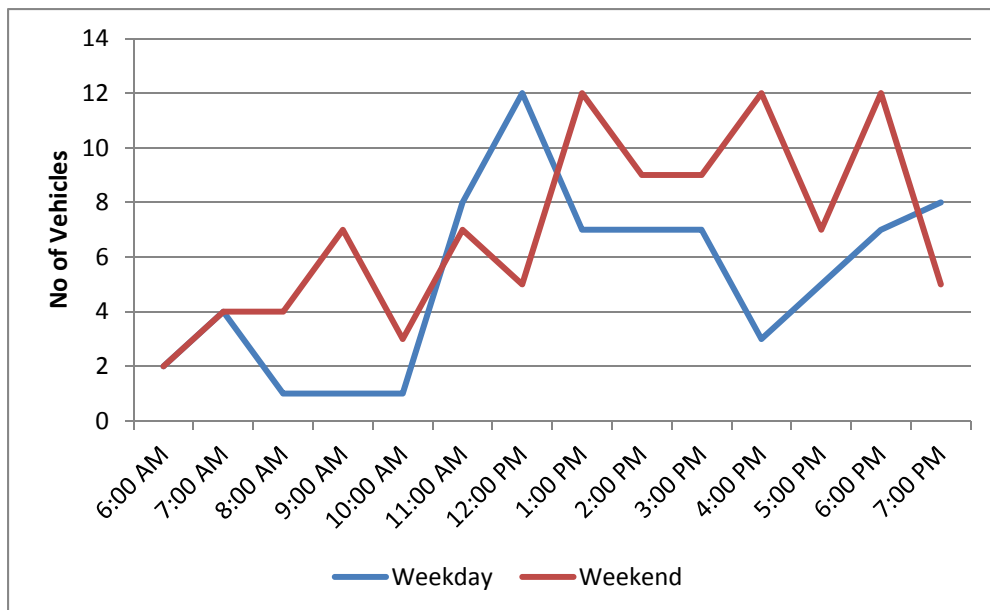


Figure 11 and Figure 12 show the number of pedestrians and bicyclists entering into park facilities using location 3 during weekday and weekend day respectively.

Figure 11: Pedestrian and Bicyclist Inflow at Location 3 on Weekday

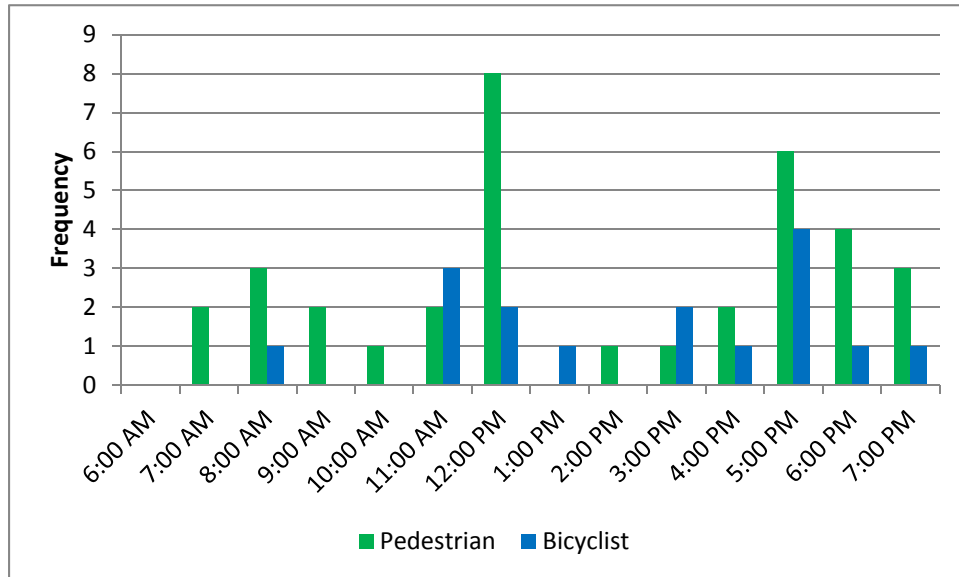
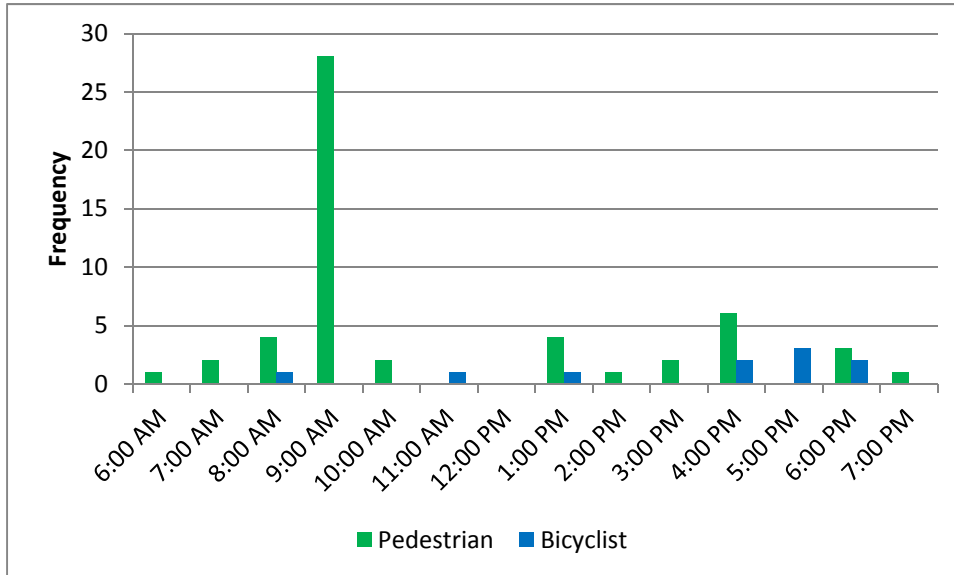


Figure 12: Pedestrian and Bicyclist Inflow at Location 3 on Weekend (Saturday)



As can be seen in Figure 11 and Figure 12, the number of bicyclists accessing park facilities at location 3 was very low.

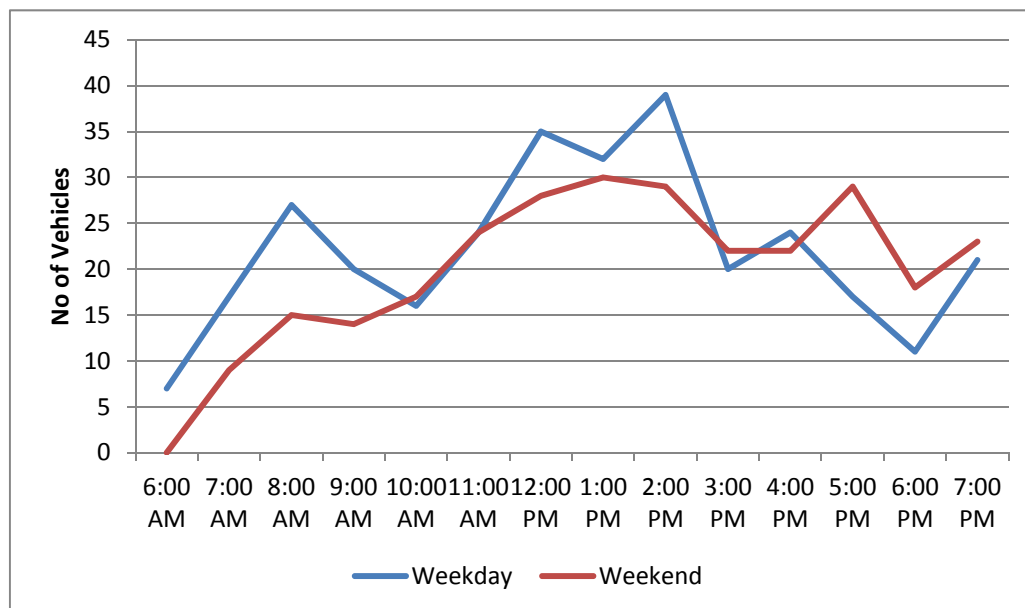
2.4 Location 4

Location 4 provides access for all travel modes to Crystal Lake Park facilities from the south. Table 7 and Figure 13 show hourly flow variations for visitors entering by motor vehicle at this location.

Table 7: Visitors Using Motor Vehicles at Location 4

Time Interval	Weekday			Saturday		
	Vehicles	Passengers	Pass/Veh.	Vehicles	Passengers	Pass/Veh.
6AM-7AM	7	10	1.43	0	0	0.00
7AM-8AM	17	21	1.24	9	10	1.11
8AM-9AM	27	32	1.19	15	33	2.20
9AM-10AM	20	23	1.15	14	23	1.64
10AM-11AM	16	24	1.50	17	25	1.47
11AM-12PM	24	32	1.33	24	46	1.92
12PM-1PM	35	48	1.37	28	58	2.07
1PM-2PM	32	52	1.63	30	51	1.70
2PM-3PM	39	56	1.44	29	51	1.76
3PM-4PM	20	35	1.75	22	34	1.55
4PM-5PM	24	39	1.63	22	38	1.73
5PM-6PM	17	22	1.29	29	61	2.10
6PM-7PM	11	21	1.91	18	34	1.89
7PM-8PM	21	40	1.90	23	47	2.04
Total	310	455	1.47	280	511	1.83

Figure 13: Hourly Inflow of Motor Vehicles at Location 4



As can be seen in Table 7 and Figure 13, the number of weekday and weekend visitors entering through Location 4 using motor vehicles was similar.

Figure 14 and Figure 15 show the number of pedestrians and bicyclists entering into park facilities using location 4 during weekday and weekend day respectively.

Figure 14: Pedestrian and Bicyclist Inflow at Location 4 on Weekday

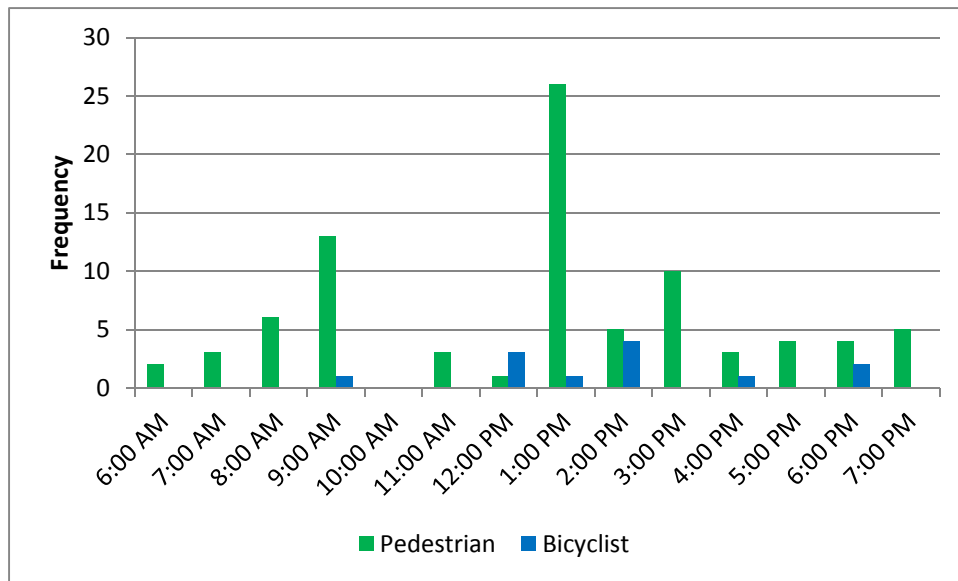
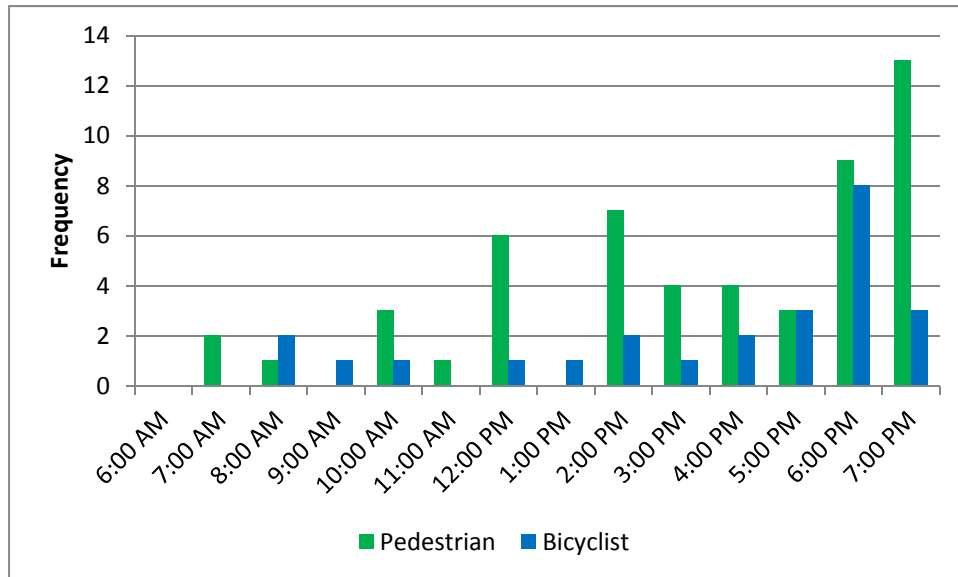


Figure 15: Pedestrian and Bicyclist Inflow at Location 4 on Weekend



As can be seen in Figure 14 and Figure 15, pedestrians entering park facilities at location 4 were higher on weekday than weekend and bicyclists entering park facilities at location 4 were higher on weekend than weekday.

2.5 Location V2

Location V2 provides access to the park through shared-use paths only intended for pedestrians and bicyclists. Figure 16 and Figure 17 show the number of pedestrians and bicyclists entering into park facilities using location V2 during weekday and weekend day respectively.

Figure 16: Pedestrian and Bicyclist Inflow at Location V2 on Weekday

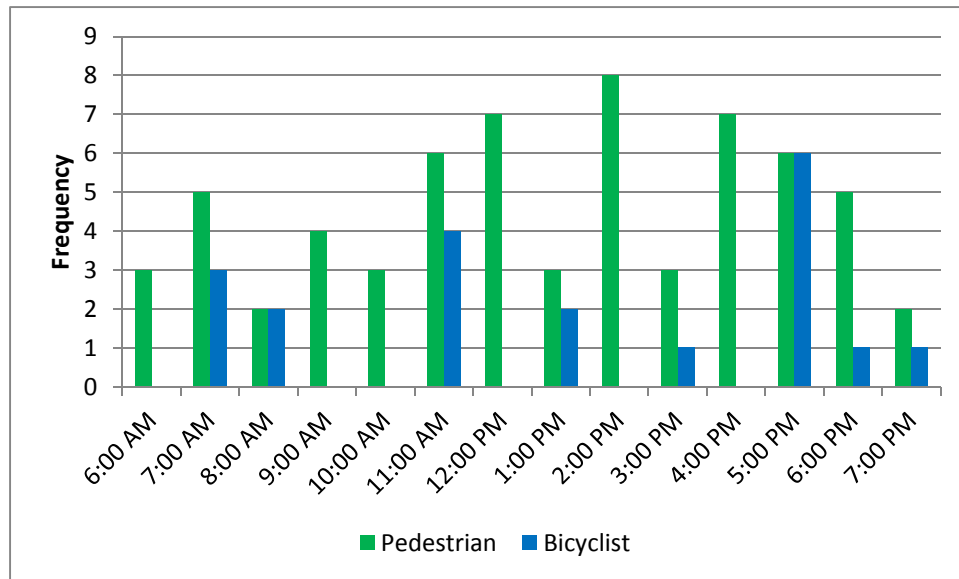
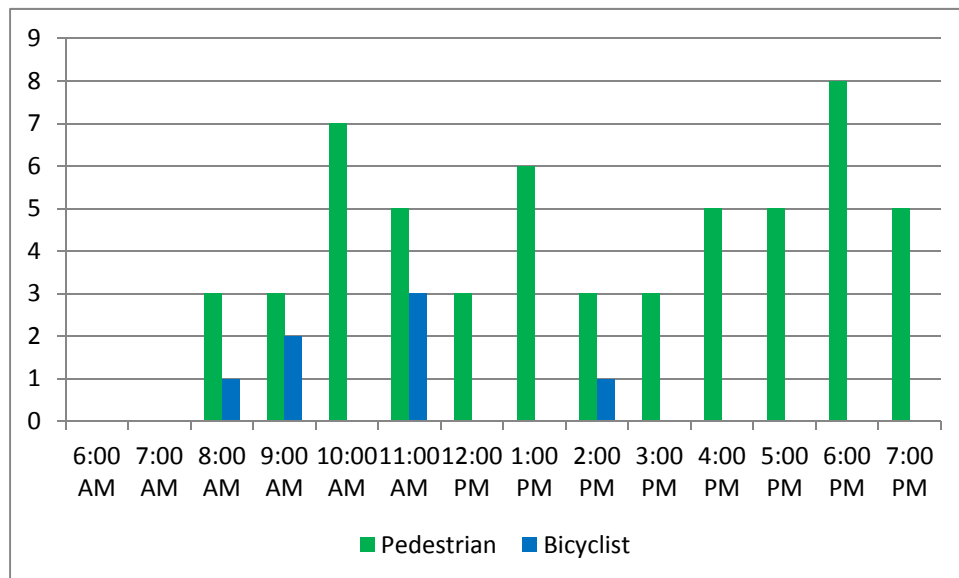


Figure 17: Pedestrian and Bicyclist Inflow at Location V2 on Weekend



As can be seen in Figure 16 and Figure 17, pedestrians accessing park facilities at Location V2 were similar during weekday and weekend day. However, bicyclists accessing park facilities at this location was much lower during weekend than weekday.

2.6 Sidewalk Usage

Location V1 recorded the number of pedestrians and bicyclists using the sidewalk along west side of Broadway Avenue. Table 8 shows sidewalk usage during weekday and weekend day.

Table 8: Sidewalk Usage at Location V1

Time Interval	Weekday		Weekend	
	Walking	Bicycling	Walking	Bicycling
6AM-7AM	1	1	4	1
7AM-8AM	0	0	3	0
8AM-9AM	6	0	0	0
9AM-10AM	2	1	14	0
10AM-11AM	4	1	0	0
11AM-12PM	6	0	11	1
12PM-1PM	1	2	1	0
1PM-2PM	41	2	6	0
2PM-3PM	6	1	7	6
3PM-4PM	4	2	4	0
4PM-5PM	6	1	6	2
5PM-6PM	6	6	12	1
6PM-7PM	14	3	6	1
7PM-8PM	5	0	1	4
Total	102	20	75	16

As can be seen in the table above sidewalk usage was higher during weekday than weekend day.

2.7 Comparing with 2007 Visitor Counts

In the summer of 2007, CUUATS collected visitors' counts at Crystal Lake Park. Table 9 shows the Crystal Lake Park Visitors comparison between 2007 and 2015. Location 3 data was not compared, as only motor vehicle mode data was collected in 2007.

Table9: Park Visitors Comparison between 2007 and 2015

Location	Weekday			Weekend		
	Total Visitors		% Change	Total Visitors		% Change
	2007	2015		2007	2015	
Location 1	919	1,414	53.9	812	1,216	49.8
Location 2	318	366	15.1	287	209	-27.2
Location 3			N/A			N/A
Location 4	713	552	-22.6	713	589	-17.4
Location V2	102	84	-17.6	62	63	1.6
Total	2,052	2,416	17.7	1,874	2,077	10.8

As can be seen in Table 9, visitors at Crystal Lake Park increased by approximately 18% on weekday and 11% on weekend day between 2007 and 2015. However, the only park entry location with increased visitors from 2007 to 2015 was location 1, as well as location 2 on the weekday. This can be primarily attributed to the new Crystal Lake Family Aquatic Center reopening at location 1 in 2013.

3.0 Findings and Conclusions

The following findings were summarized based on data collected at Crystal Lake Park.

- 2,577 visitors visited the park facilities on a typical weekday.
- 2,311 visitors visited the park facilities on a weekend day (Saturday).
- Location 1 is the busiest entry point for Crystal Lake Park. Approximately 55% of visitors entered at this location on weekday, and 53% of visitors entered at this location on weekend day.
- The highest number of pedestrians entering into the park facilities was at Location 1.
- The highest number of bicyclists entering into the park facilities was at Location 1 on weekday and at Location 4 on weekend day.
- The number of park visitors at Crystal Lake Park increased by approximately 18% during weekday since 2007.
- The number of park visitors at Crystal Lake Park increased by approximately 11% during weekend.