



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Richard A. Davey, MassDOT Secretary and CEO and MPO Chairman
Karl H. Quackenbush, Executive Director, MPO Staff

MEMORANDUM

DATE January 24, 2014
TO Efi Pagitsas, Traffic Analysis and Design Group Manager, MPO Staff
FROM Beth Isler, Bicycle/Pedestrian Coordinator and Livability Program Manager, MPO Staff
RE 2013 Bicycle and Pedestrian Data Collection

This memorandum summarizes the results of the 2013 bicycle and pedestrian count program.

1 INTRODUCTION

The Boston Region Metropolitan Planning Organization (MPO) collects data about the number of people who are biking and walking at locations throughout the region. The data are used to evaluate long-term volume trends, estimate bicycle and pedestrian demand, and assess changes in usage before and after projects are implemented. This information helps transportation planners and government officials make decisions for bicycle and pedestrian programs and projects, including project prioritization and funding allocation. It also helps to justify investment in bicycle and pedestrian facilities as an integral component of the region's transportation network.

Although the MPO organizes counts only for the Boston region, it serves as a repository for counts gathered from throughout the state. Counts are generally collected by volunteers, municipalities, and other organizations and typically occur during the months of May, July, and September. The data are publicly available in the online Bicycle/Pedestrian Count Database, which can be accessed from the MPO's website at www.bostonmpo.org.

2 METHODOLOGY

This section describes how the count data is currently collected in the Boston region. Data are gathered for both off- and on-street users. Off-street counts record walkers and bicyclists on trails or shared-use paths. On-street counts collect the numbers of

- pedestrians on sidewalks,
- bicyclists riding on streets, and
- bicyclists riding on sidewalks.

Data were collected in May, July and September of 2013 according to the recommendations of the National Bicycle and Pedestrian Documentation

Project (NBPD), an Institute of Transportation Engineers (ITE)-sanctioned program.

3 RESULTS

In 2013, 47 counts were conducted at 20 locations around the state, as shown in Table 1.

TABLE 1
Locations Counted in 2013

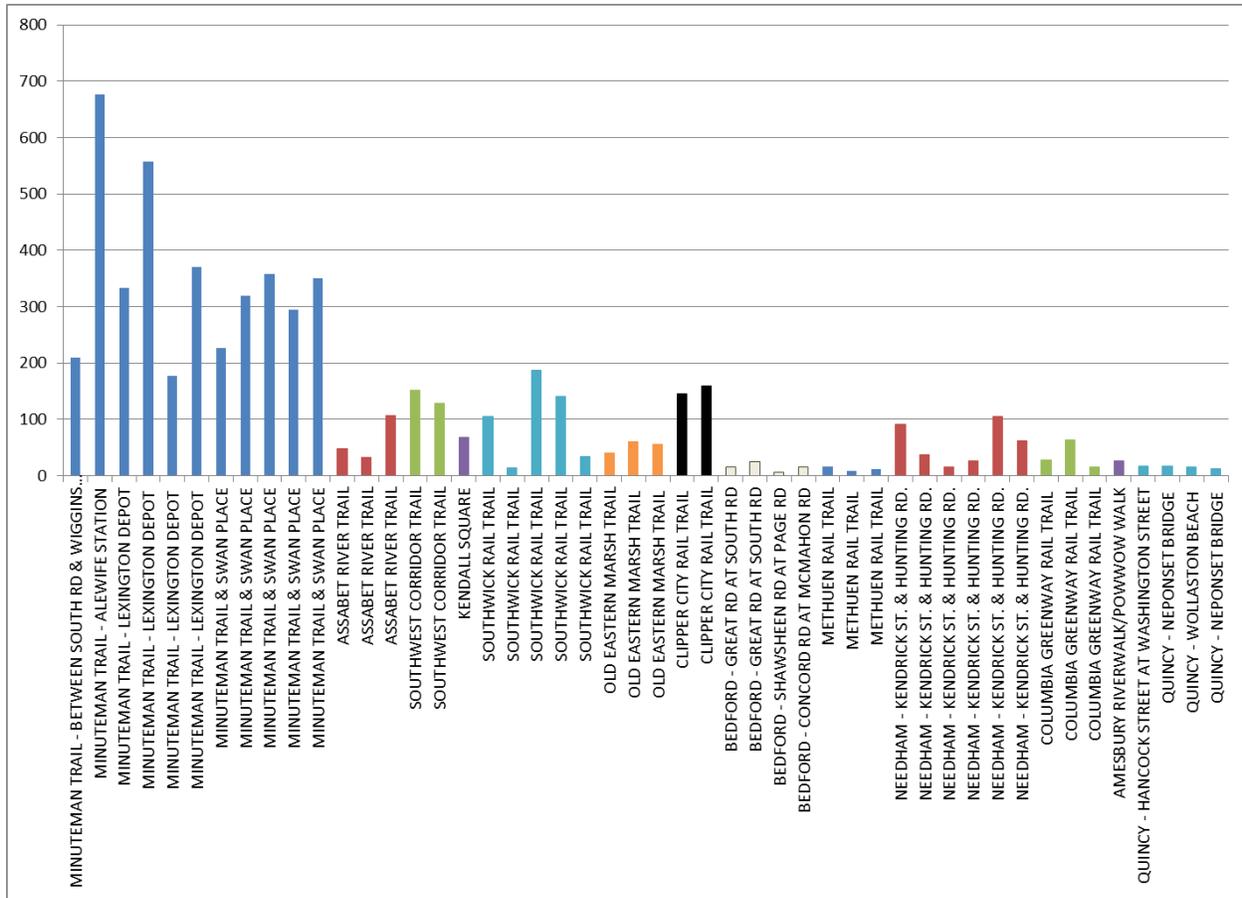
	Municipality	Count Location Description
1	Bedford	Minuteman Trail - Between South Road and Wiggins Ave
2	Cambridge	Minuteman Trail - North of Route 2 / Alewife Station
3	Lexington	Minuteman Trail - Lexington Depot / East of Hancock St / Meriam St / Station Way
4	Hudson	Assabet River Trail - Rte 85 Crossing
5	Boston	Southwest Corridor Trail - 100 ft North of Heath St
6	Cambridge	Kendall Square - Broadway / Main St / 3rd St
7	Southwick	Congamond Rd and Rte 168 Crossing
8	Arlington	Minuteman Trail and Swan Place
9	Salisbury	Old Eastern Marsh Trail and Friedenfels Street
10	Newburyport	Clipper City Rail Trail at Washington Street
11	Bedford	Great Rd at South Rd
12	Bedford	Shawsheen Rd at Page Rd
13	Bedford	Concord Rd at McMahan Rd
14	Methuen	Methuen Rail Trail at Railroad St Parking Lot
15	Needham	Kendrick St. and Hunting Rd
16	Westfield/ Southwick	Columbia Greenway Rail Trail at Southwick Border
17	Amesbury	Amesbury Riverwalk/Powwow Walk
18	Quincy	Hancock Street at Washington Street
19	Quincy	Neponset Bridge at Quincy Shore Drive
20	Quincy	Wollaston Beach at 790 Quincy Shore Drive

Of these locations, 14 are within the Boston MPO region and the remaining six are outside of the region. Eight locations are on-street while the rest are trails or shared-use paths.

The hour during which the highest volumes were observed was determined for each location; these volumes are shown in Figure 1. For the majority of weekend counts, the highest hour volumes occurred during midday (consistent with the NBPD project guidelines); during the weekday counts the highest hour

volumes occurred during the afternoon (PM). Historical data and analysis of each of location counted in 2013 is provided in Appendix (attached).

FIGURE 1
2013 Volumes during Hour of Highest Observed Usage



As shown, the Minuteman Bikeway has the highest volumes of all the locations counted in 2013. **However, the greatest number of all-day counts took place at locations along the Minuteman Bikeway, ensuring that the peak hour was captured. Other locations that were only counted for a couple hours may not have been recording peak usage.**

Of the 11 day-long counts, nine took place on the weekend and all were on trails. The weekend data are shown in Figure 2, and the weekday data are shown in Figure 3. The weekend trail data likely reflect recreational rather than commuter use.

In Figure 2, there is no obvious reason for the unique data line shown for the Minuteman Bikeway at Lexington Depot on the Sunday in May. The most likely reason would be a change in weather, although without more data there is no way of knowing.

FIGURE 2
2013 Weekend Day-Long Count Results

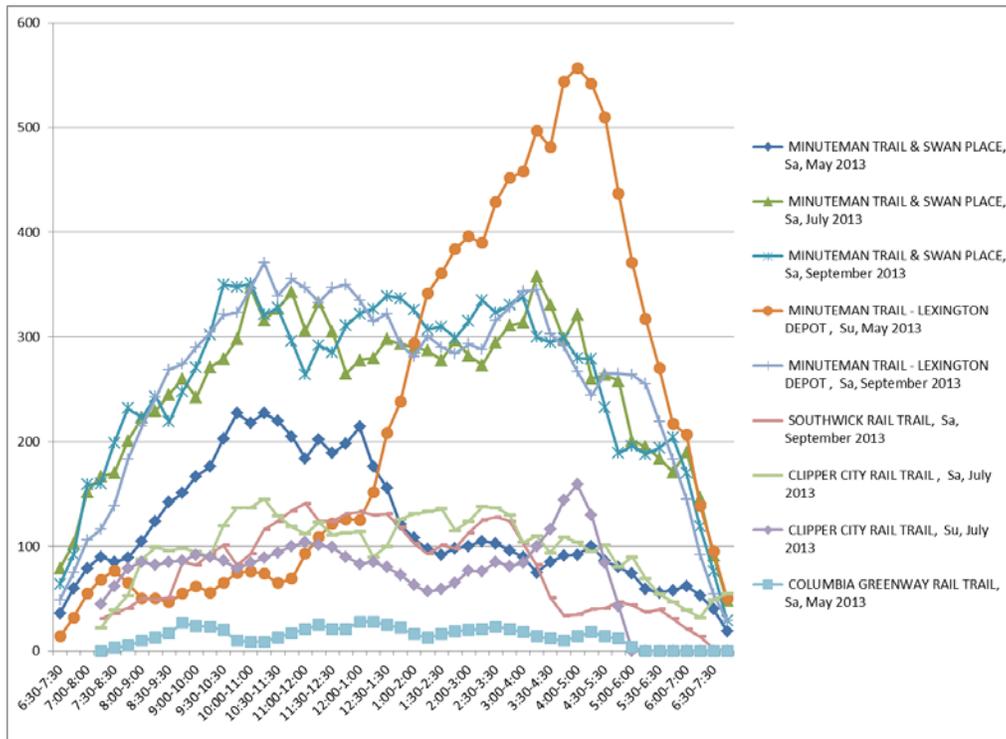
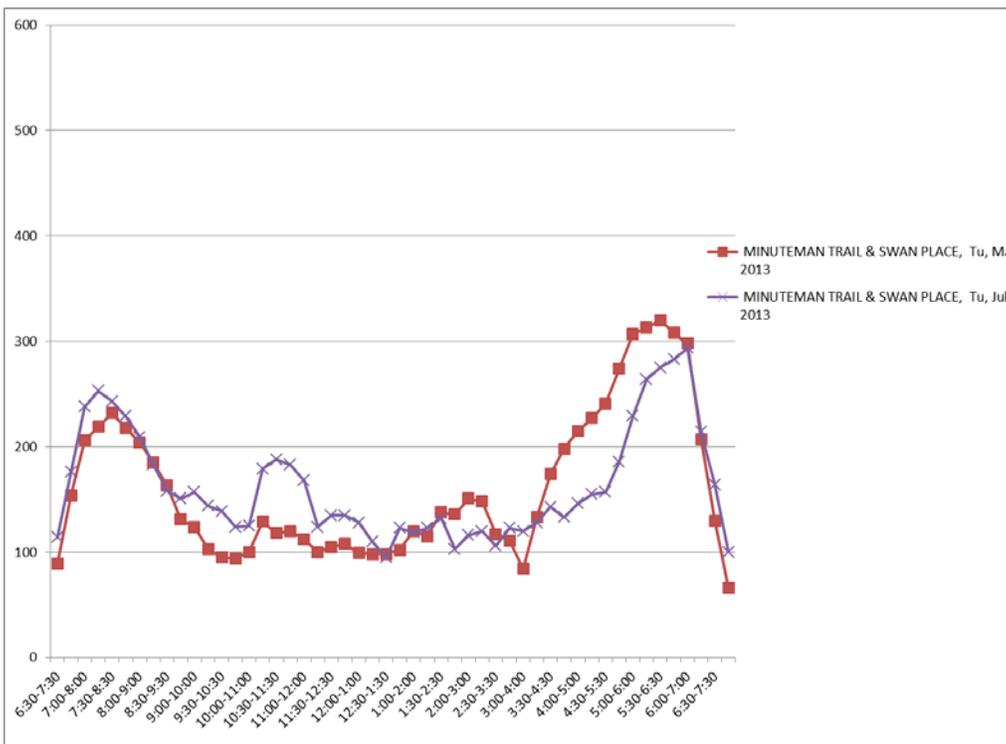


FIGURE 3
2013 Weekday Day-Long Count Results



6 CONCLUSION

The MPO plans to continue collecting bicycle and pedestrian data in 2014. Developing a more robust data-collection program is essential in order to help inform bicycling and walking planning and project prioritization.

Bl/bi

ATTACHMENTS

APPENDIX. Count Data

APPENDIX. COUNT DATA

A.1 BEDFORD: MINUTEMAN TRAIL – BETWEEN SOUTH RD AND WIGGINS AVE

TABLE 1
Peak Hour Volumes

Month-Year	Day	Peak Hour	Period	Volume
September 2007	Sa	4:30-5:30	PM	121
May 2008	Sa	9:45-10:45	AM	96
May 2008	Tu	12:15-1:15	MID	292
July 2008	Sa	9:45-10:45	AM	289
September 2008	Sa	3:00-4:00	PM	286
May 2009	W	11:45-12:45	MID	198
May 2009	Sa	12:15-1:15	MID	314
September 2009	Su	2:30-3:30	MID	399
September 2009	Tu	12:00-1:00	MID	187
July 2010	Sa	10:00-11:00	AM	336
July 2010	Tu	12:00-1:00	MID	131
September 2010	Tu	12:00-1:00	MID	144
May 2011	Sa	11:15-12:15	MID	253
May 2011	Tu	7:30-8:30	AM	34
July 2013	Sa	9:15-10:15	AM	210

FIGURE 1
12-Hour Counts

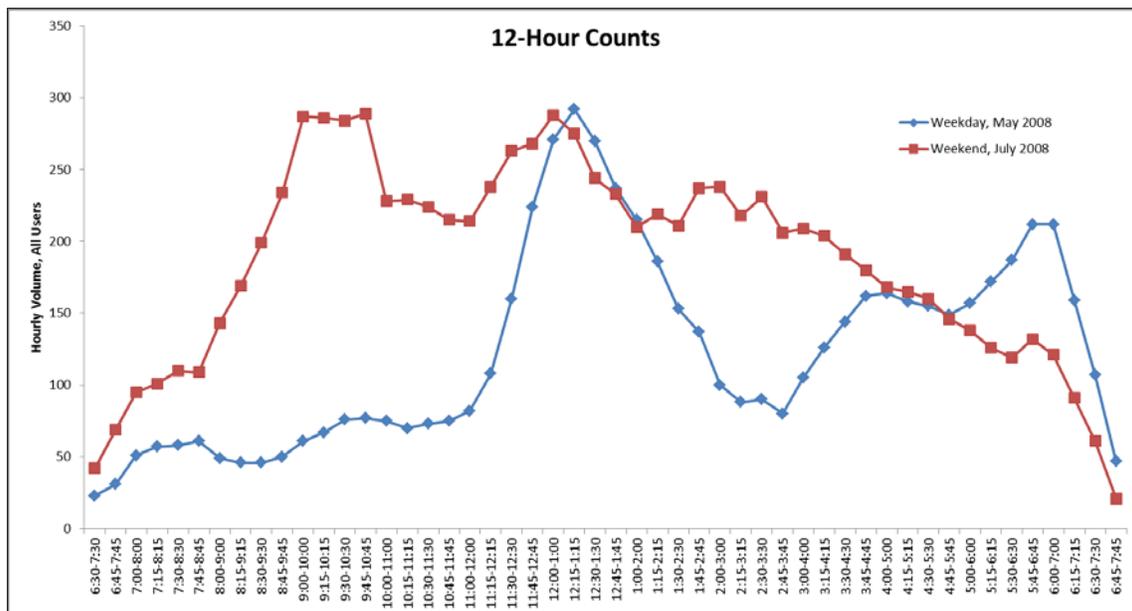


FIGURE 2
Weekday Peak Hour Volumes

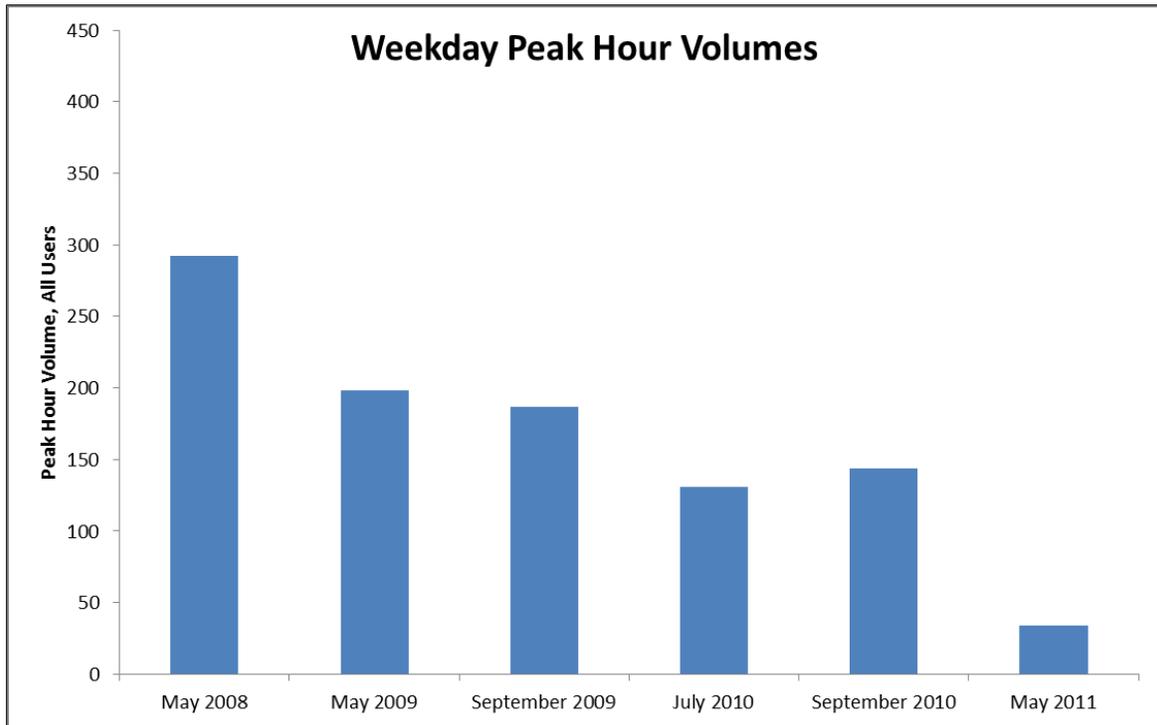
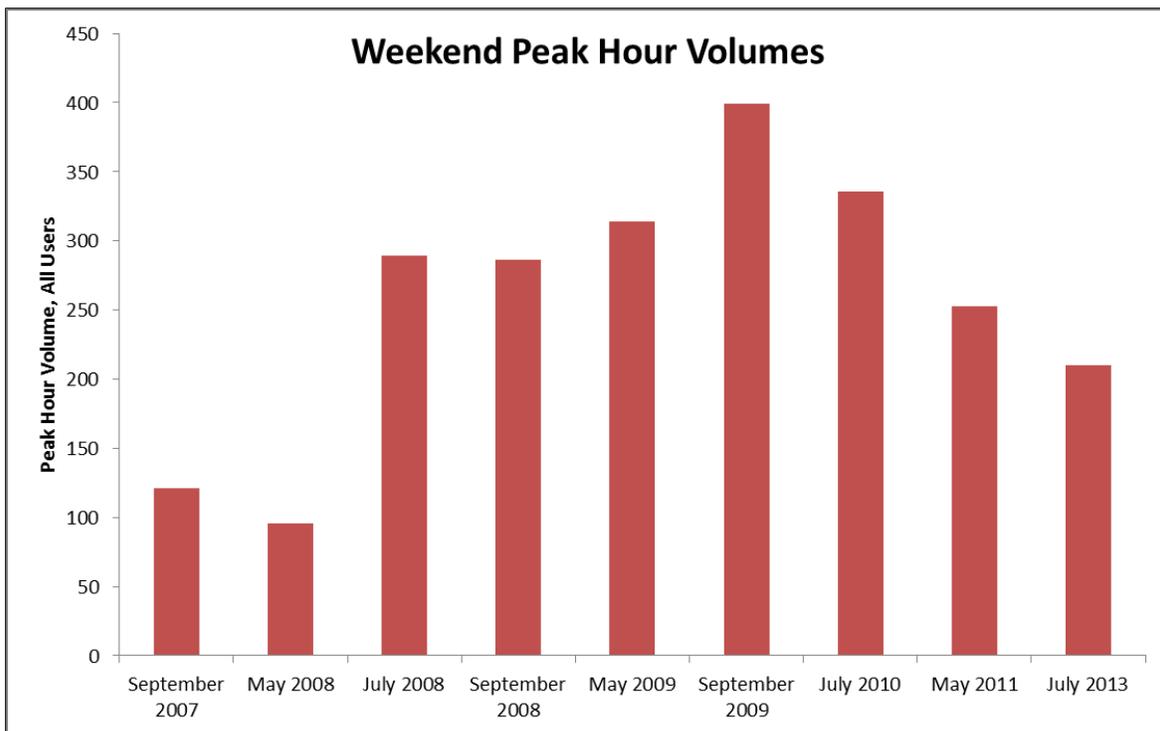


FIGURE 3
Weekend Peak Hour Volumes



A.2 CAMBRIDGE: MINUTEMAN TRAIL – NORTH OF ROUTE 2/ALEWIFE STATION

**TABLE 2
Peak Hour Volumes**

Month-Year	Day	Peak Hour	Period	Volume
May 2008	Tu	5:30-6:30	PM	664
May 2008	Sa	10:15-11:15	MID	221
July 2008	Sa	10:00-11:00	MID	230
May 2009	Sa	3:15-4:15	PM	241
July 2009	W	5:30-6:30	PM	465
July 2009	Sa	10:30-11:30	MID	312
May 2013	Tu	7:45-8:45	AM	676

**FIGURE 4
12-Hour Counts**

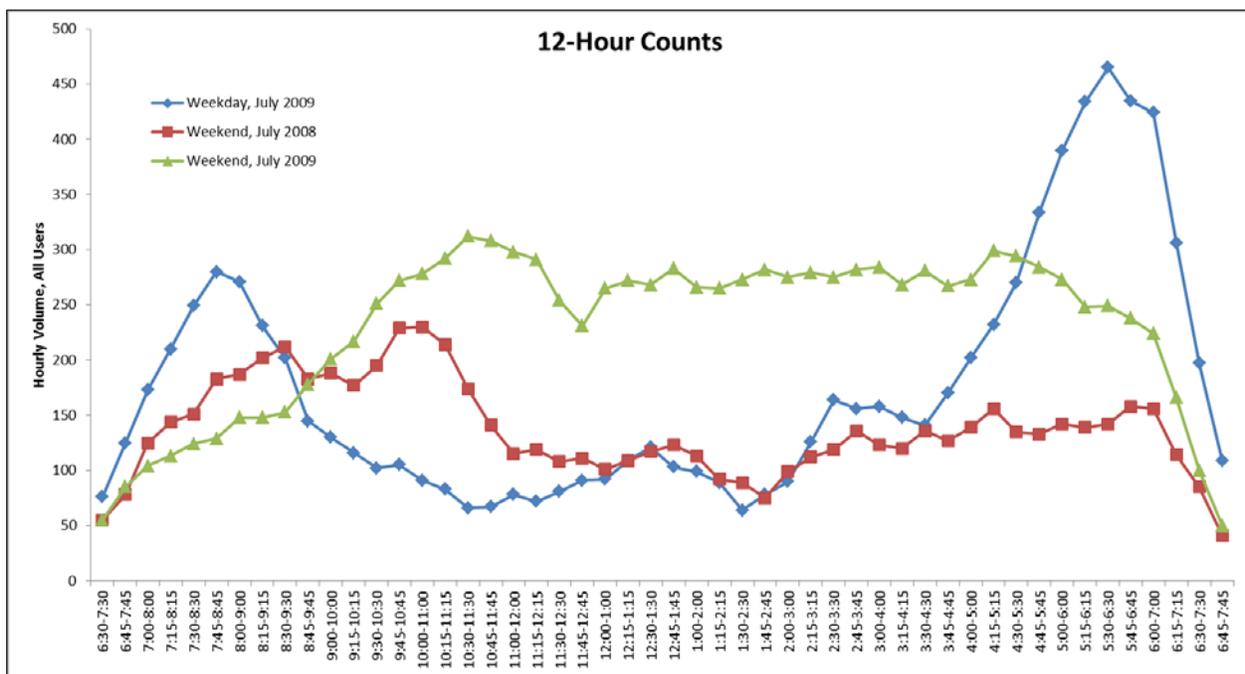


FIGURE 5
Weekday Peak Hour Volumes

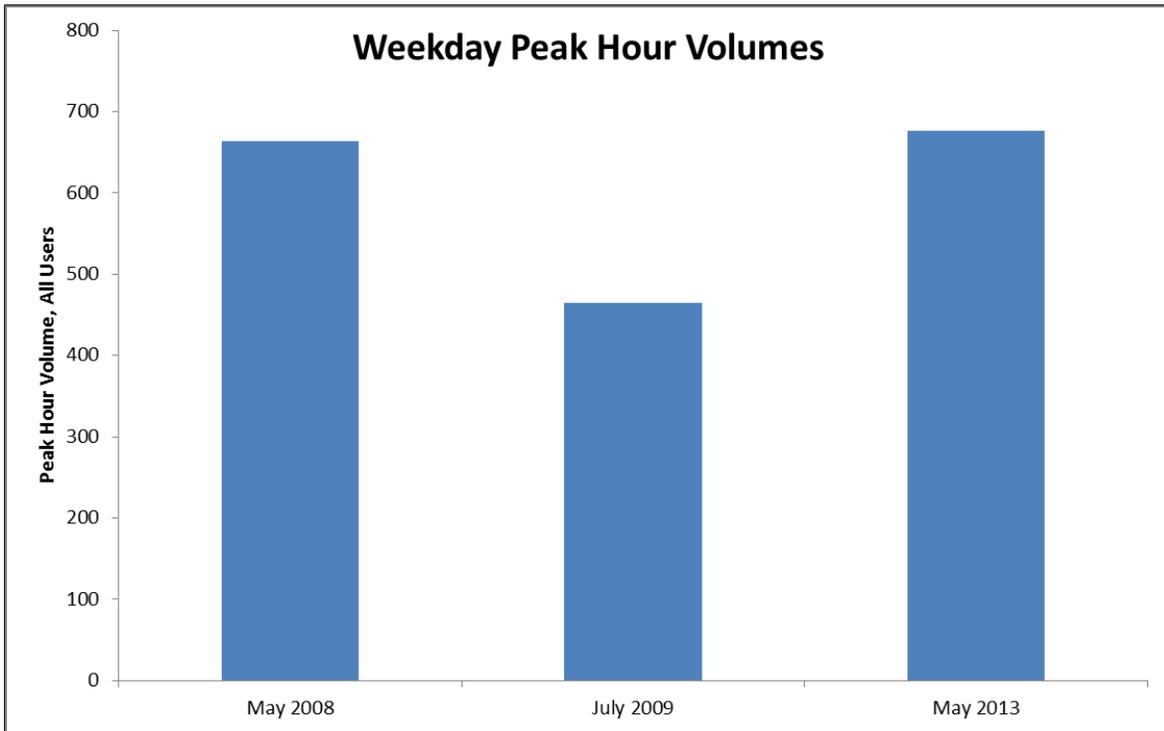
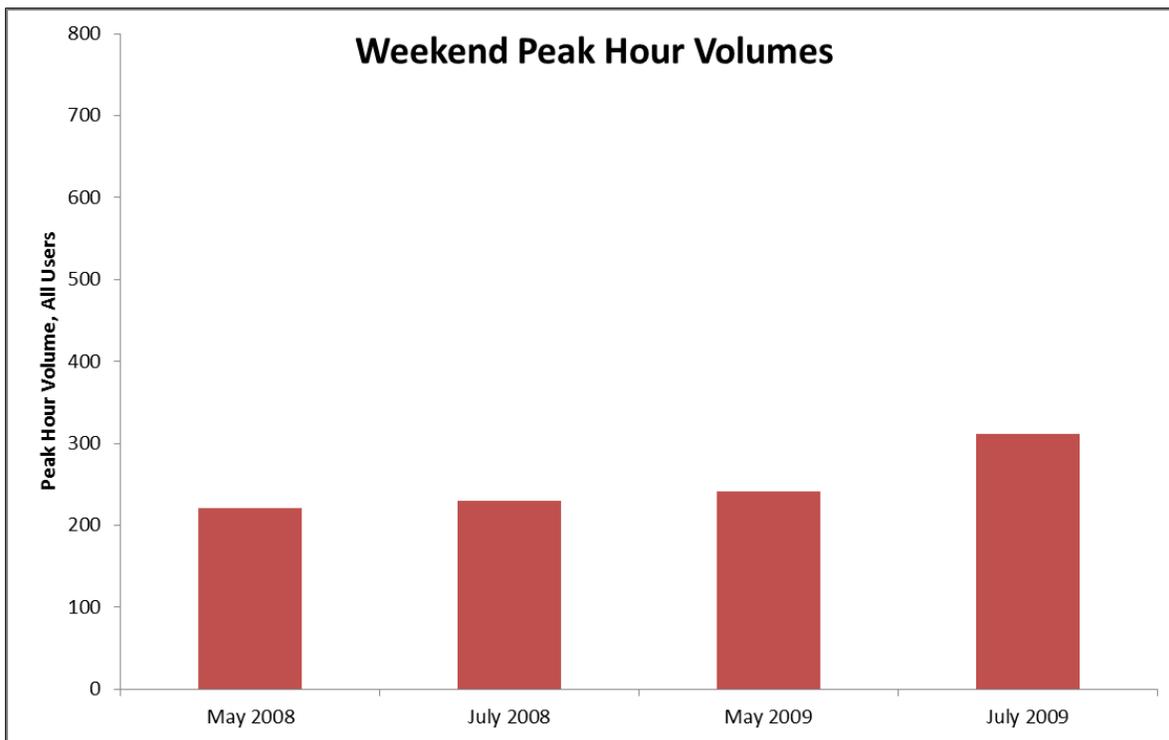


FIGURE 6
Weekend Peak Hour Volumes



A.3 LEXINGTON: MINUTEMAN TRAIL – LEXINGTON DEPOT/EAST OF HANCOCK ST/MERIAM ST/STATION WAY

TABLE 3
Peak Hour Volumes

Month-Year	Day	Peak Hour	Period	Volume
September 1993	Tu	5:15-6:15	PM	124
May 1994	M	2:00-3:00	MID	678
July 1998	Sa	1:45-2:45	MID	431
July 1998	Su	2:00-3:00	MID	648
September 2007	Sa	9:30-10:30	AM	311
May 2008	Sa	9:15-10:15	AM	153
May 2008	Tu	6:00-7:00	PM	275
May 2008	Sa	3:30-4:30	PM	408
July 2008	Sa	9:15-10:15	AM	348
July 2008	Tu	5:30-6:30	PM	334
September 2008	Sa	2:00-3:00	MID	349
May 2009	Sa	2:45-3:45	MID	338
May 2009	Tu	5:30-6:30	PM	275
September 2009	Sa	3:00-4:00	PM	397
September 2009	Tu	5:30-6:30	PM	223
May 2010	Sa	1:30-2:30	MID	495
May 2010	Tu	9:15-10:15	AM	150
September 2010	Sa	3:30-4:30	PM	462
May 2012	Sa	2:45-3:45	MID	588
September 2011	Sa	2:45-3:45	MID	487
September 2011	Tu	5:30-6:30	PM	294
September 2012	Th	5:45-6:45	PM	232
September 2012	Sa	3:00-4:00	PM	462
May 2012	Tu	12:15-1:15	MID	122
May 2013	Tu	6:00-7:00	PM	333
May 2013	Su	4:00-5:00	PM	557
September 2013	Th	5:15-6:15	PM	177
September 2013	Sa	10:15-11:15	MID	371

FIGURE 7
12-Hour Weekend Counts

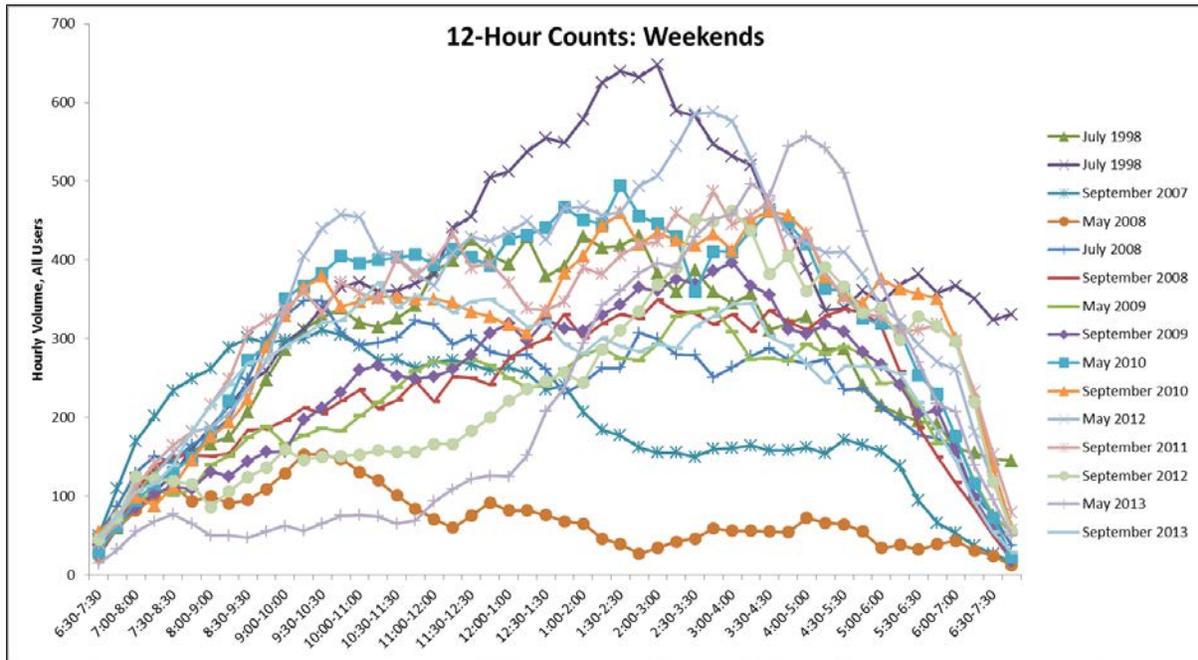


FIGURE 8
Weekday Peak Hour Volumes

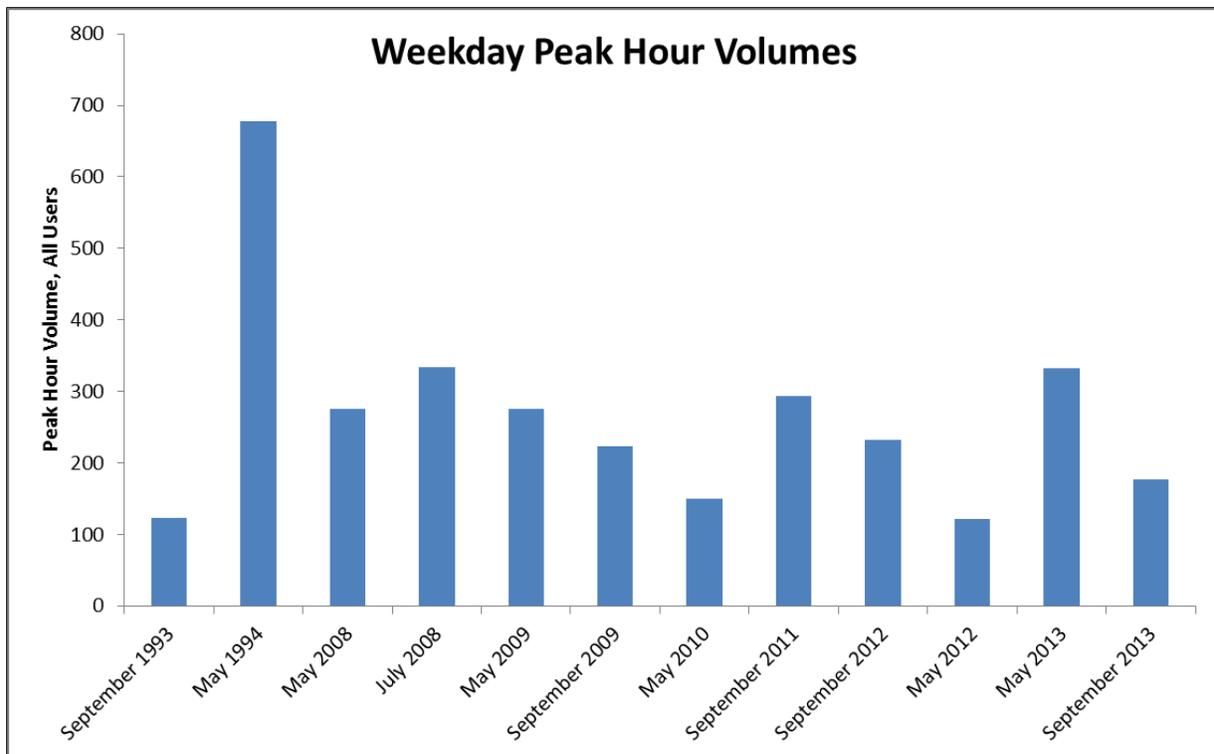
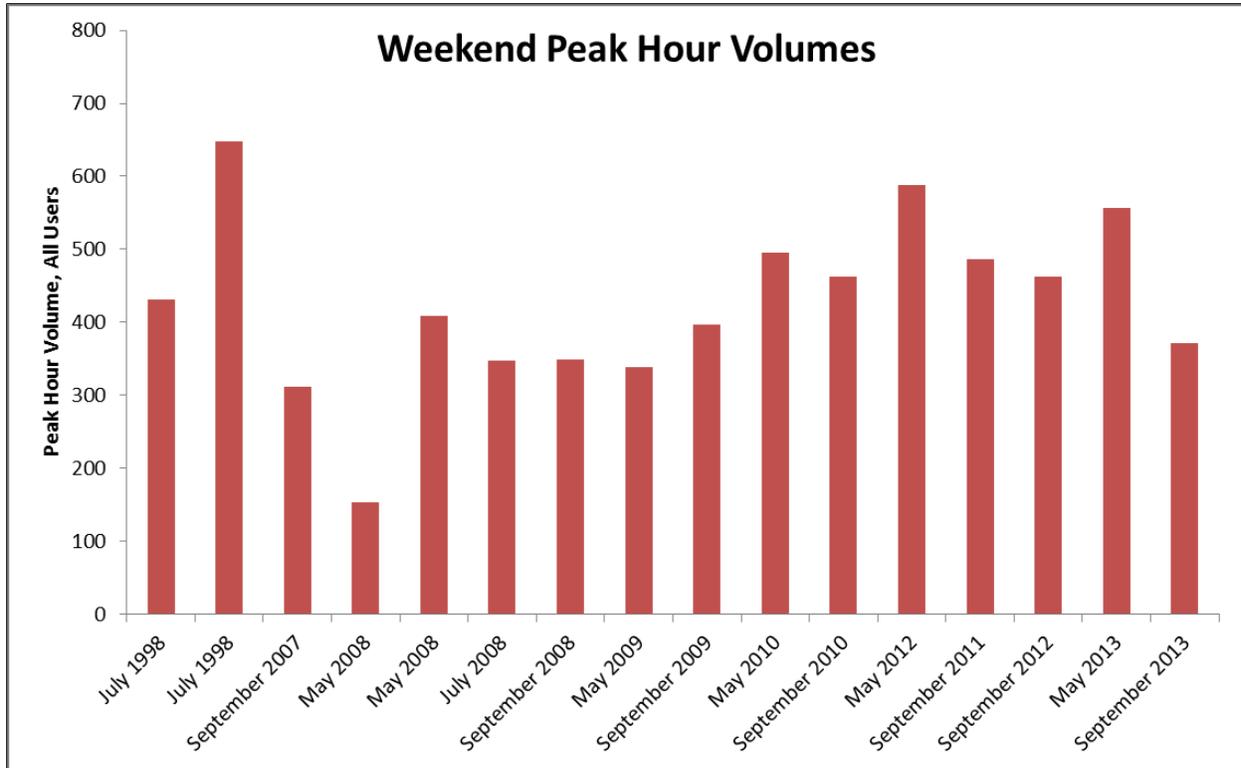


FIGURE 9
Weekend Peak Hour Volumes



A.4 ARLINGTON: MINUTEMAN TRAIL AND SWAN PLACE

TABLE 4
Peak Hour Volumes

Month-Year	Day	Peak Hour	Period	Volume
May 2011	Sa	10:45-11:45	MID	314
May 2011	Tu	5:45-6:45	PM	167
July 2011	Tu	6:00-7:00	PM	243
July 2012	Sa	11:00-12:00	MID	383
July 2012	Tu	7:30-8:30	AM	246
May 2013	Sa	9:45-10:45	AM	227
May 2013	Tu	5:30-6:30	PM	320
July 2013	Sa	3:15-4:15	PM	358
July 2013	Tu	6:00-7:00	PM	294
September 2013	Sa	9:45-10:45	MID	351

FIGURE 10
12-Hour Weekday Counts

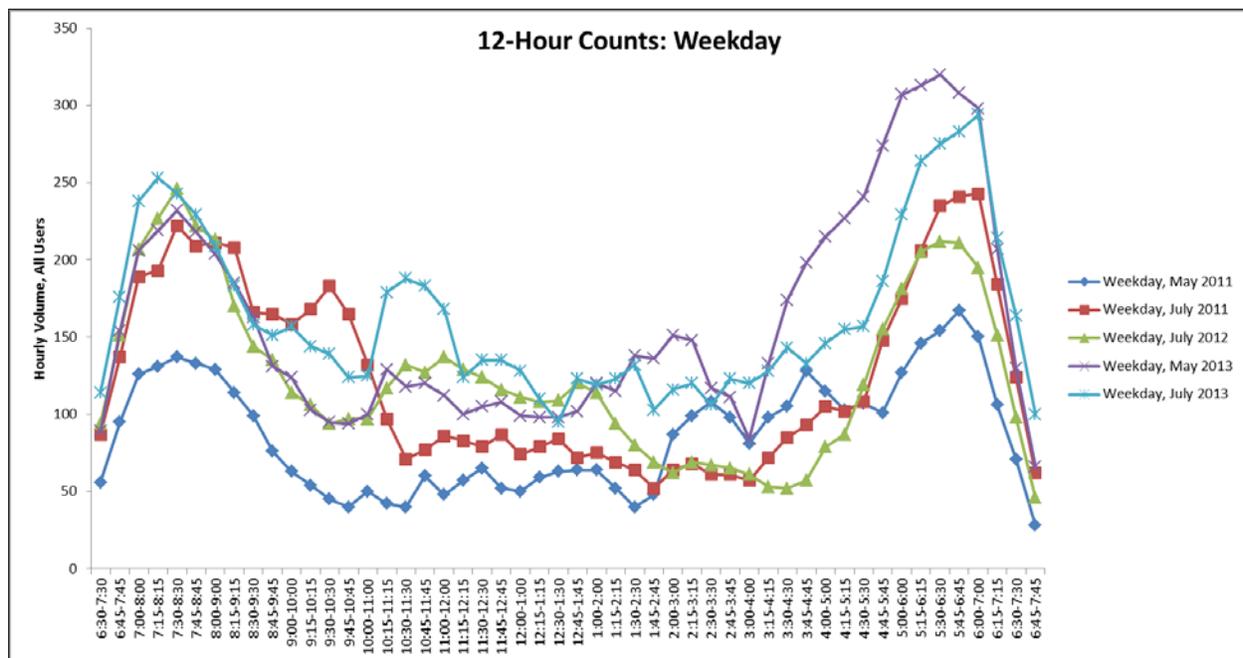


FIGURE 11
Weekday Peak Hour Volumes

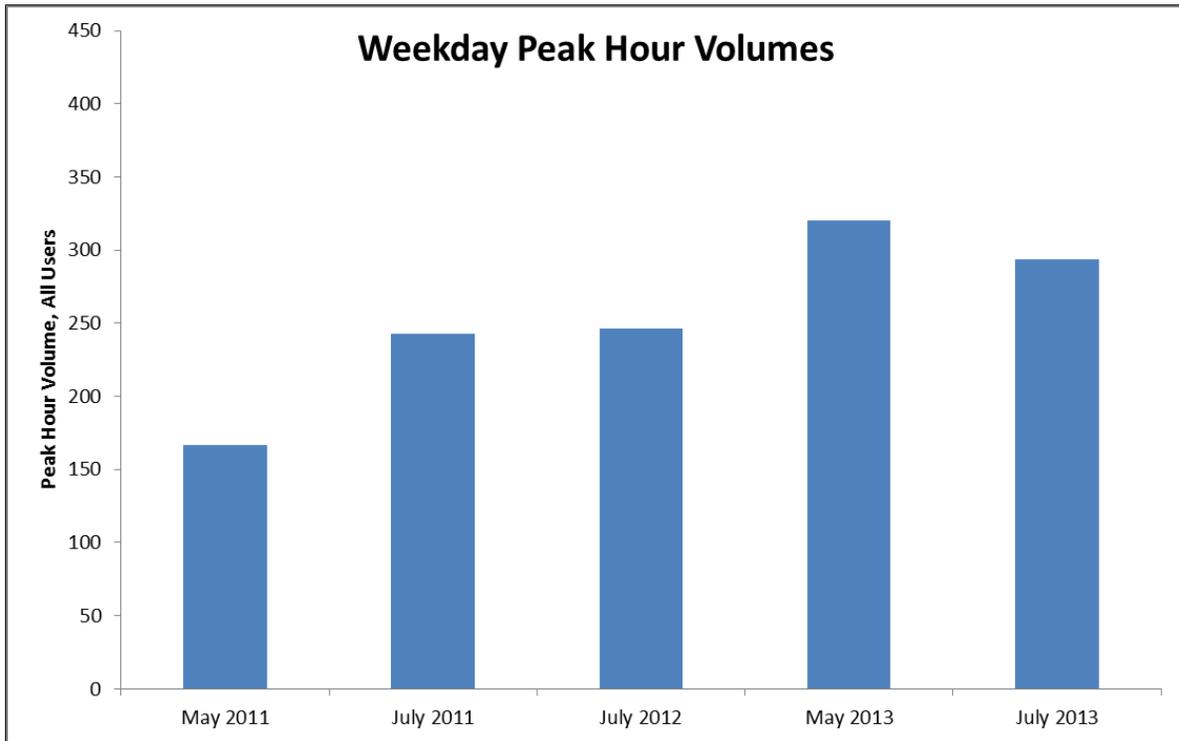
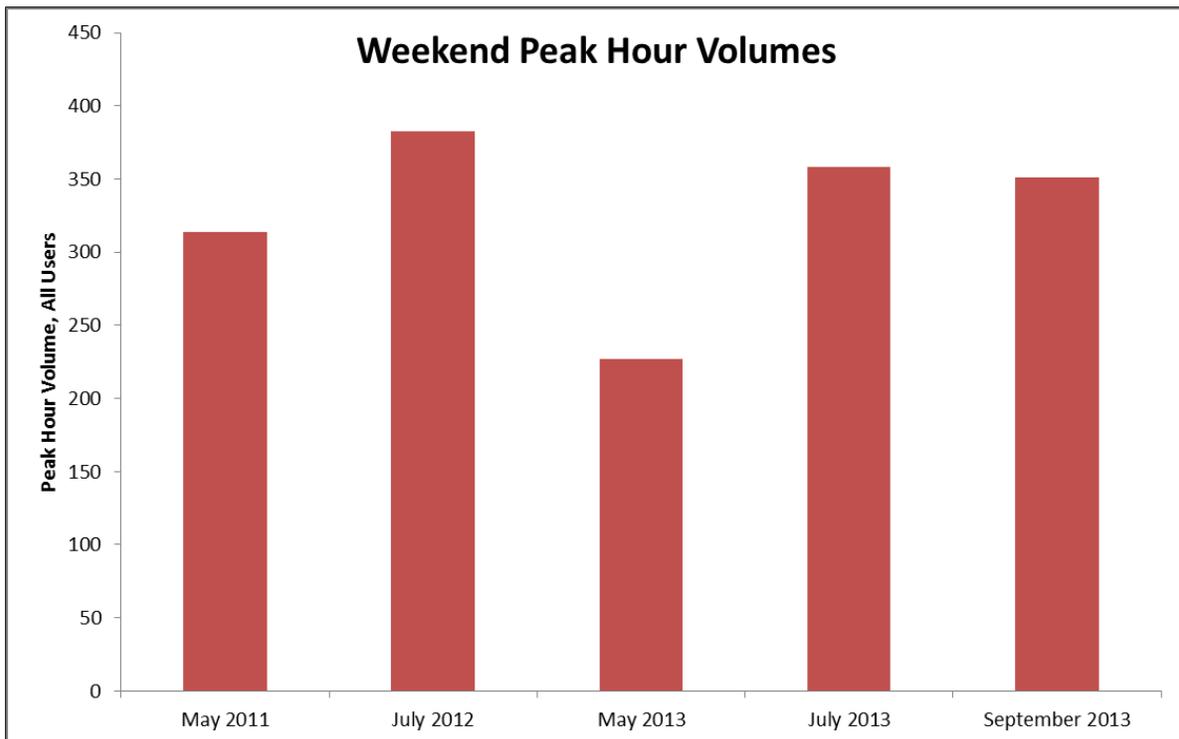


FIGURE 12
Weekend Peak Hour Volumes



A.5 HUDSON: ASSABET RIVER TRAIL – RTE 85 CROSSING

TABLE 5
Peak Hour Volumes

Month-Year	Day	Peak Hour	Period	Volume
September 2007	Sa	11:15-12:15	MID	70
May 2008	Tu	6:15-7:15	PM	102
July 2008	Sa	11:45-12:45	MID	58
July 2008	Tu	12:30-1:30	MID	41
September 2008	Sa	1:30-2:30	MID	61
May 2009	Sa	2:15-3:15	MID	82
May 2009	W	4:15-5:15	PM	59
September 2009	Su	12:00-1:00	MID	107
May 2010	Sa	10:45-11:45	MID	154
May 2010	W	10:45-11:45	MID	66
September 2010	Sa	1:45-2:45	MID	66
July 2011	Sa	1:30-2:30	MID	115
July 2011	Tu	9:00-10:00	AM	46
July 2012	Sa	10:30-11:30	MID	80
July 2012	Tu	9:00-10:00	AM	49
September 2012	Sa	2:45-3:45	MID	114
July 2013	Sa	10:30-11:30	MID	48
July 2013	F	6:15-7:15	PM	33
September 2013	Sa	10:30-11:30	MID	107

FIGURE 13
Weekday Peak Hour Volumes

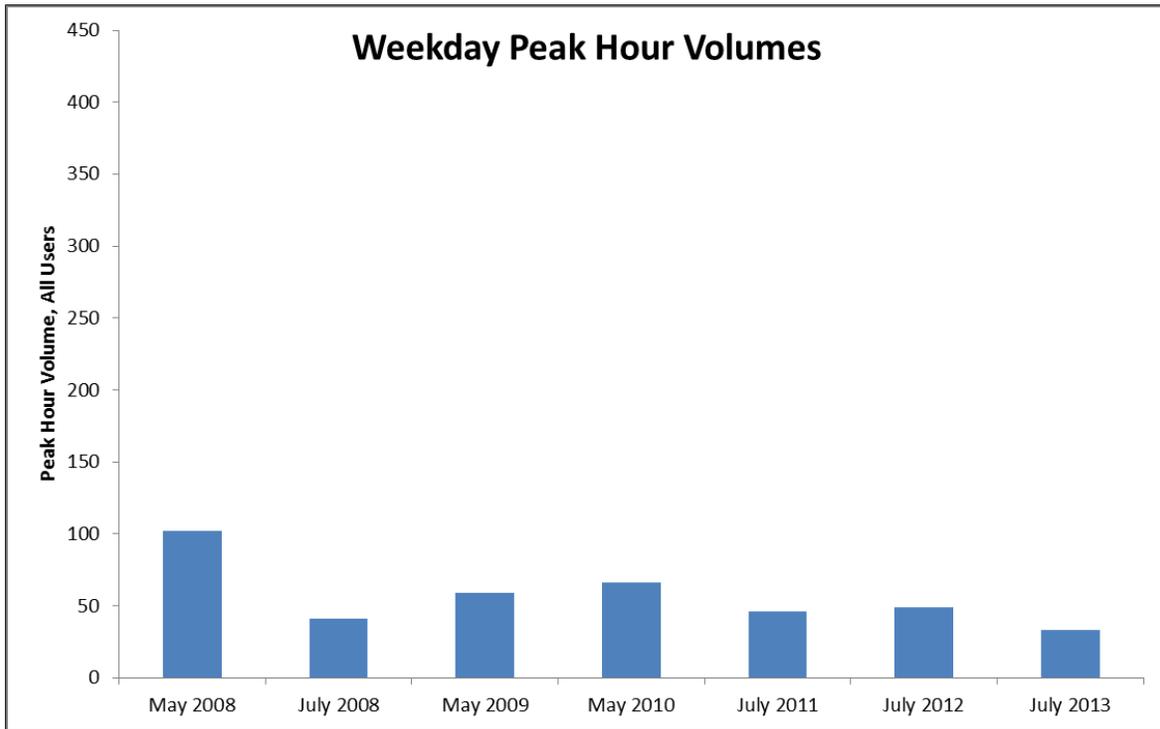
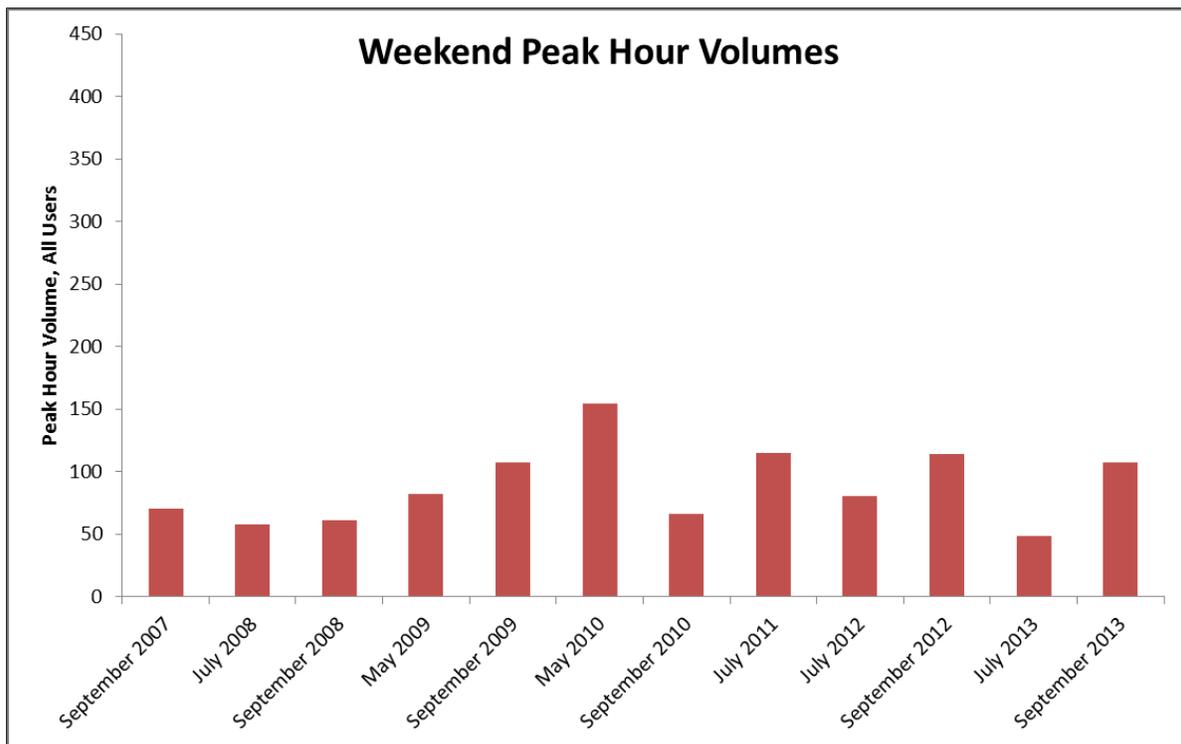


FIGURE 14
Weekend Peak Hour Volumes



A.6 BOSTON: SOUTHWEST CORRIDOR TRAIL – 100 FT NORTH OF HEATH ST

**TABLE 6
Peak Hour Volumes**

Month-Year	Day	Peak Hour	Period	Volume
May 2005	Tu	8:30-9:30	AM	97
May 2009	W	8:45-9:45	AM	175
May 2010	Sa	1:00-2:00	MID	167
May 2010	Tu	9:00-10:00	AM	199
September 2010	Tu	6:15-7:15	PM	290
July 2012	Th	5:45-6:45	PM	264
July 2012	Sa	12:45-1:45	MID	108
September 2012	W	5:45-6:45	PM	373
September 2012	Th	5:45-6:45	PM	372
September 2012	Sa	1:45-2:45	MID	127
May 2013	W	5:45-6:45	PM	151
May 2013	Th	8:45-9:45	AM	129

**FIGURE 15
Weekday Peak Hour Volumes**

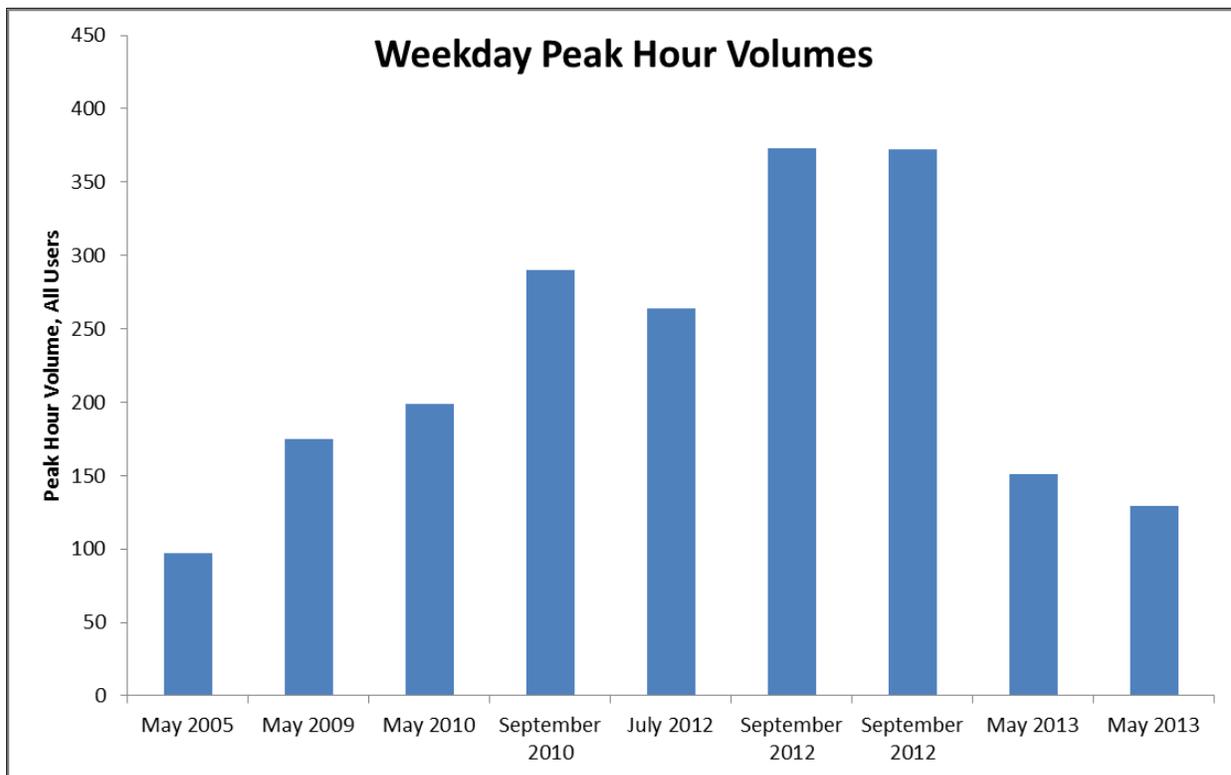
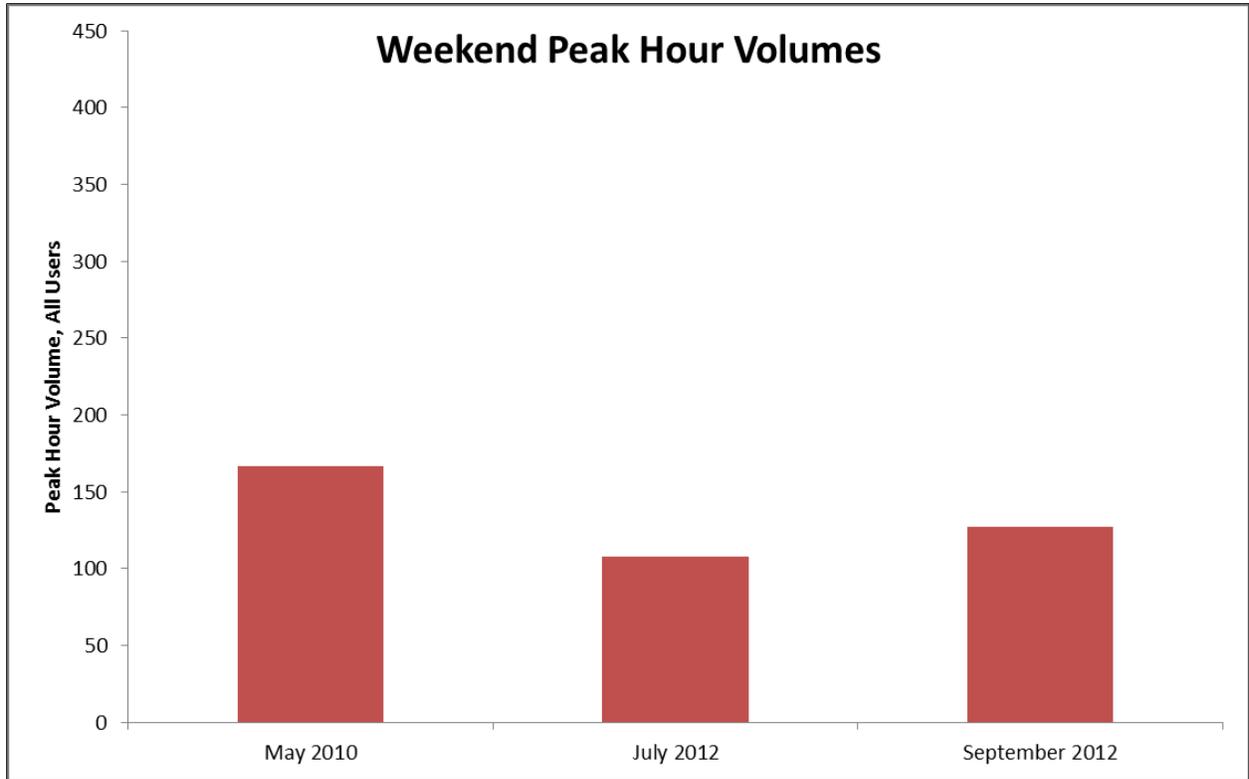


FIGURE 16
Weekend Peak Hour Volumes

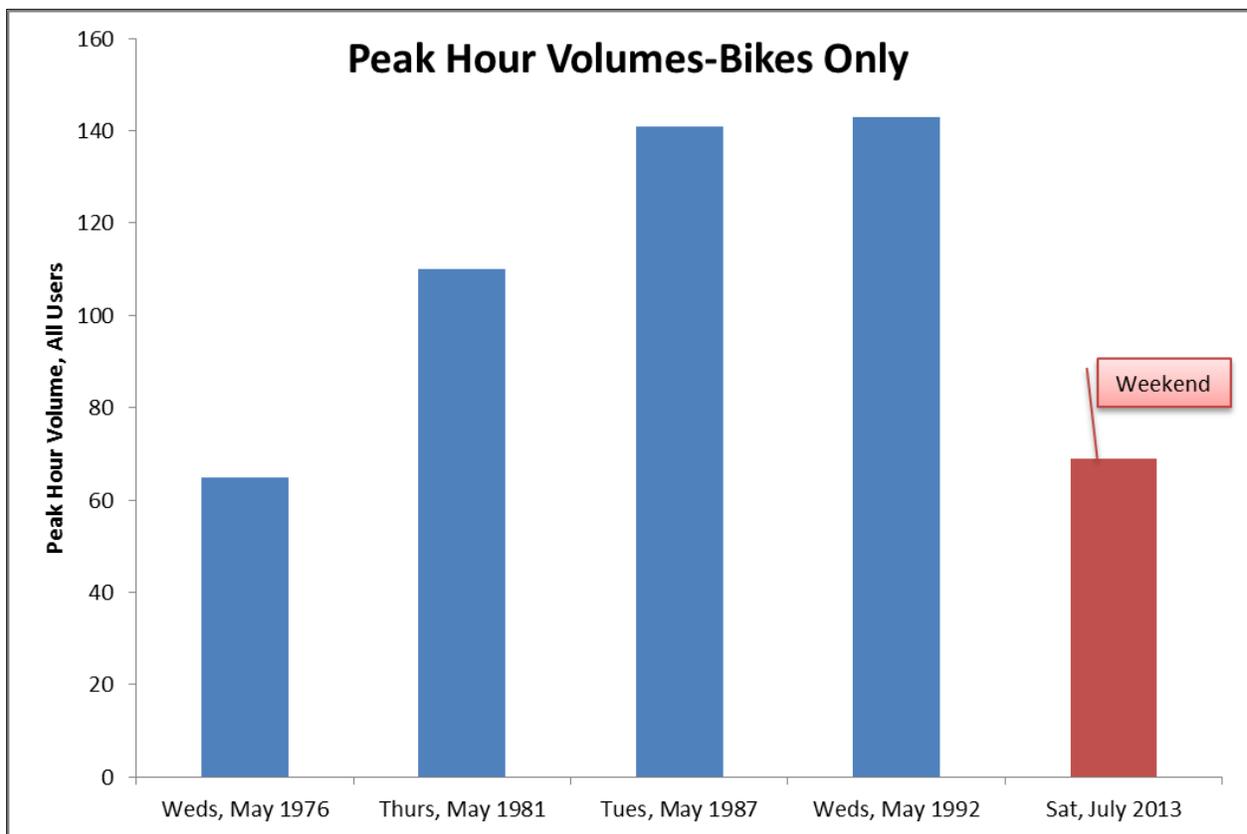


A.7 CAMBRIDGE: KENDALL SQUARE – BROADWAY/MAIN ST/3RD ST

**TABLE 7
Peak Hour Volumes**

Day, Month-Year	Peak Hour	Period	Volume
Weds, May 1976	9:45-10:45	AM	65
Thurs, May 1981	5:15-6:15	PM	110
Tues, May 1987	9:00-10:00	AM	141
Weds, May 1992	9:15-10:15	AM	143
Sat, July 2013	1:00-2:00	MID	69

**FIGURE 17
Peak Hour Bicycle Volumes**



A.8 SOUTHWICK: SOUTHWICK RAIL TRAIL CONGAMOND RD & RTE 168 CROSSING

**TABLE 8
Peak Hour Volumes**

Month-Year	Day	Peak Hour	Period	Volume
September 2009	Su	11:30-12:30	MID	55
May 2010	Sa	12:30-1:30	MID	86
May 2010	Tu	9:15-10:15	AM	11
July 2010	Sa	10:00-11:00	MID	79
July 2011	Sa	10:45-11:45	MID	135
September 2012	Tu	5:45-6:45	PM	82
September 2012	Th	6:15-7:15	PM	91
September 2012	Su	12:00-1:00	MID	227
May 2013	Tu	5:45-6:45	PM	106
May 2013	Th	4:45-5:45	PM	14
May 2013	Su	1:30-2:30	MID	188
September 2013	Sa	11:00-12:00	MID	141
September 2013	Tu	4:00-5:00	PM	34

**FIGURE 18
12-Hour Counts**

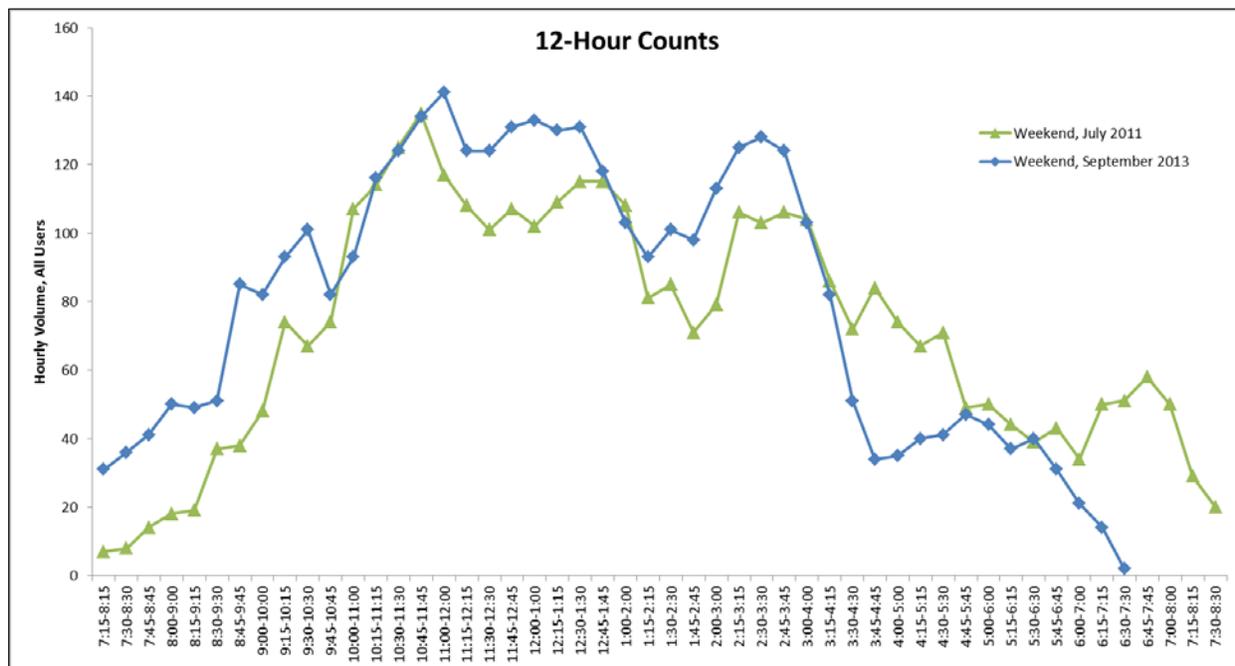


FIGURE 19
Weekday Peak Hour Volumes

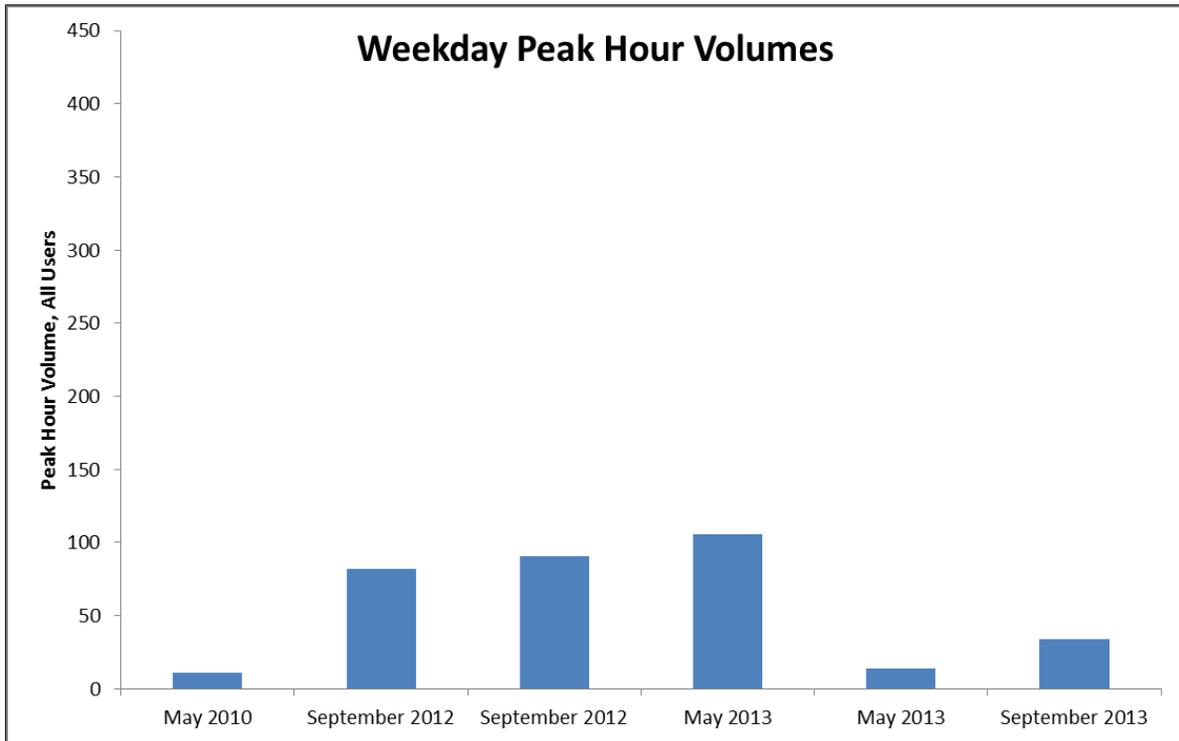
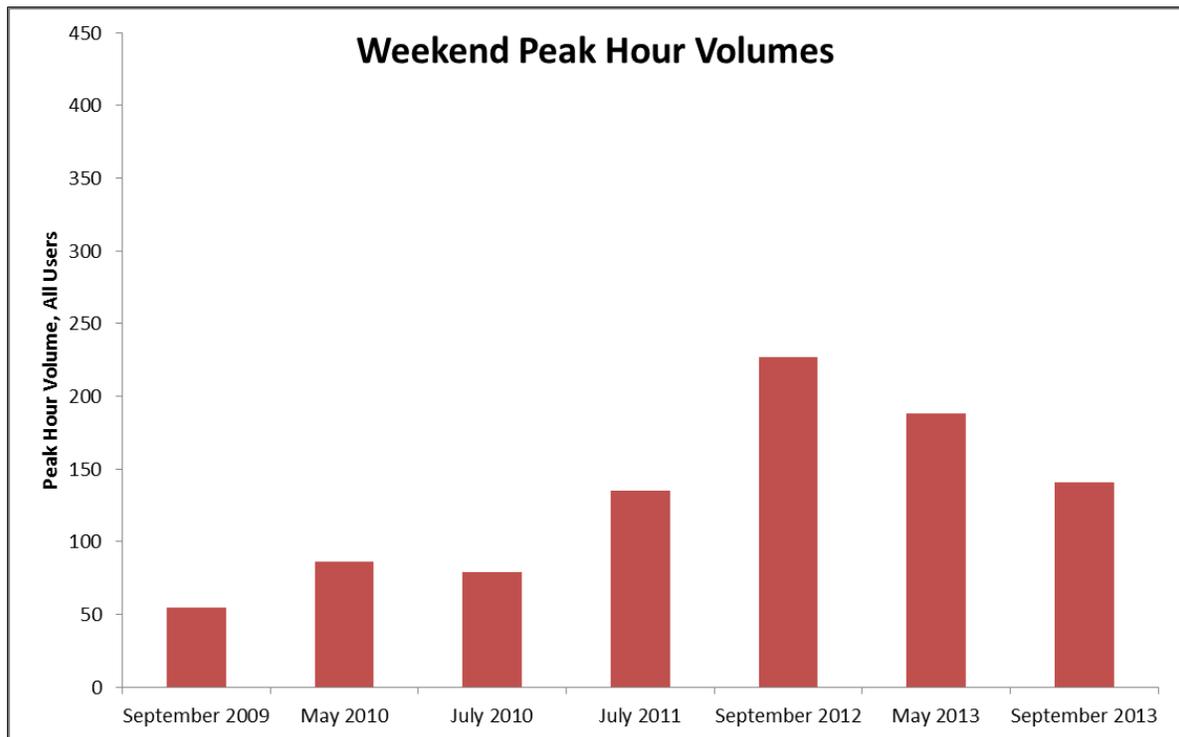


FIGURE 20
Weekend Peak Hour Volumes



A.9 SALISBURY: OLD EASTERN MARSH TRAIL AND FRIEDENFELS STREET

**TABLE 9
Peak Hour Volumes**

Month-Year	Day	Peak Hour	Period	Volume
May 2011	Sa	8:45-9:45	AM	51
May 2013	M	5:15-6:15	PM	40
May 2013	Tu	5:30-6:30	PM	61
May 2013	Sa	10:30-11:30	MID	56

**FIGURE 21
12-Hour Counts**

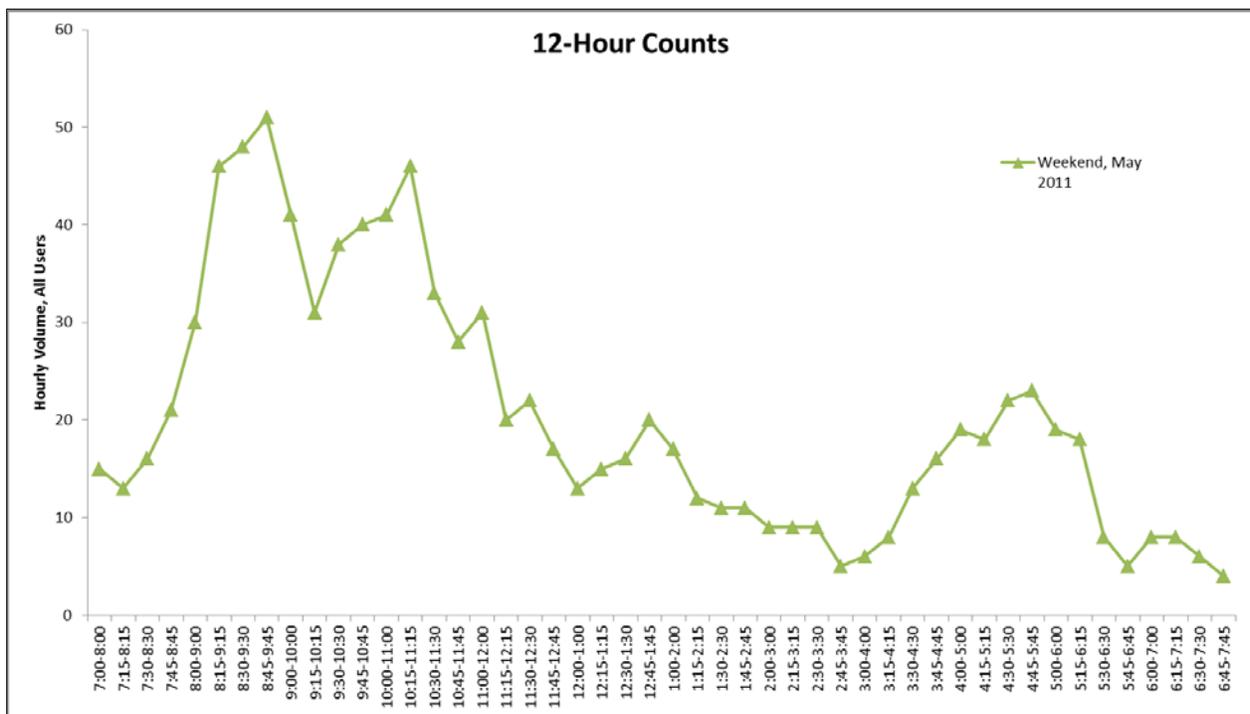


FIGURE 22
Weekday Peak Hour Volumes

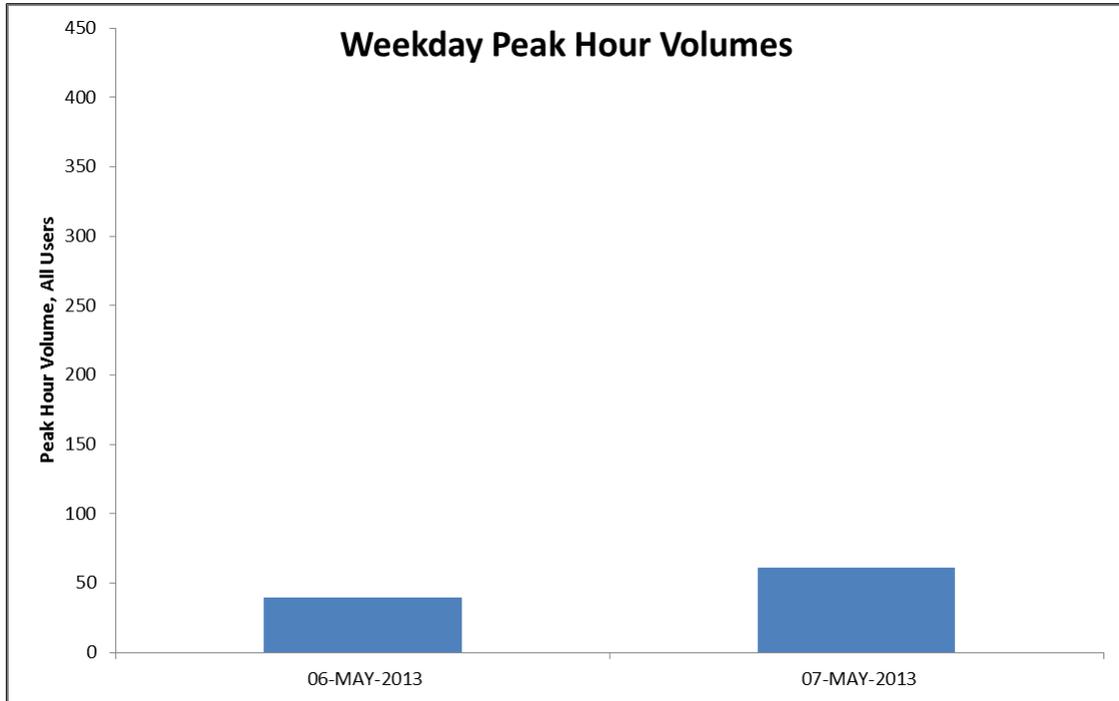
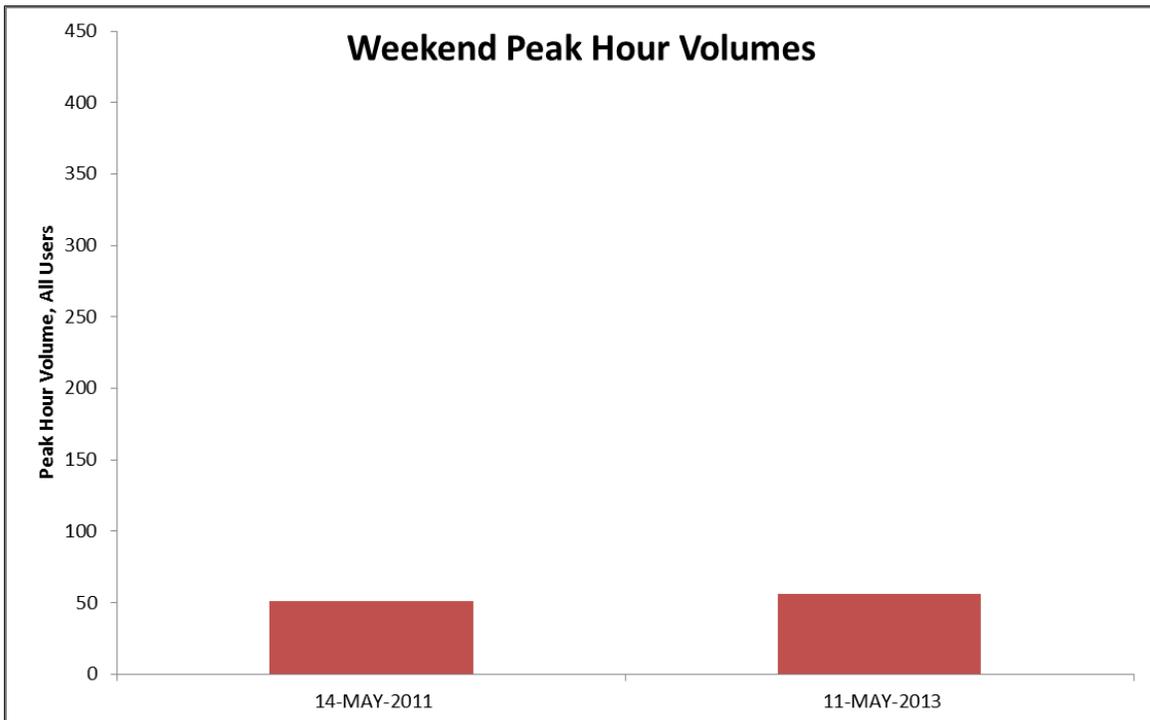


FIGURE 23
Weekend Peak Hour Volumes



A.10 NEWBURYPORT: CLIPPER CITY RAIL TRAIL AT WASHINGTON STREET

**TABLE 10
Peak Hour Volumes**

Month-Year	Day	Peak Hour	Period	Volume
May 2010	Tu	11:45-12:45	MID	62
July 2013	Sa	10:15-11:15	MID	145
July 2013	Su	4:00-5:00	PM	159

**FIGURE 24
12-Hour Counts**

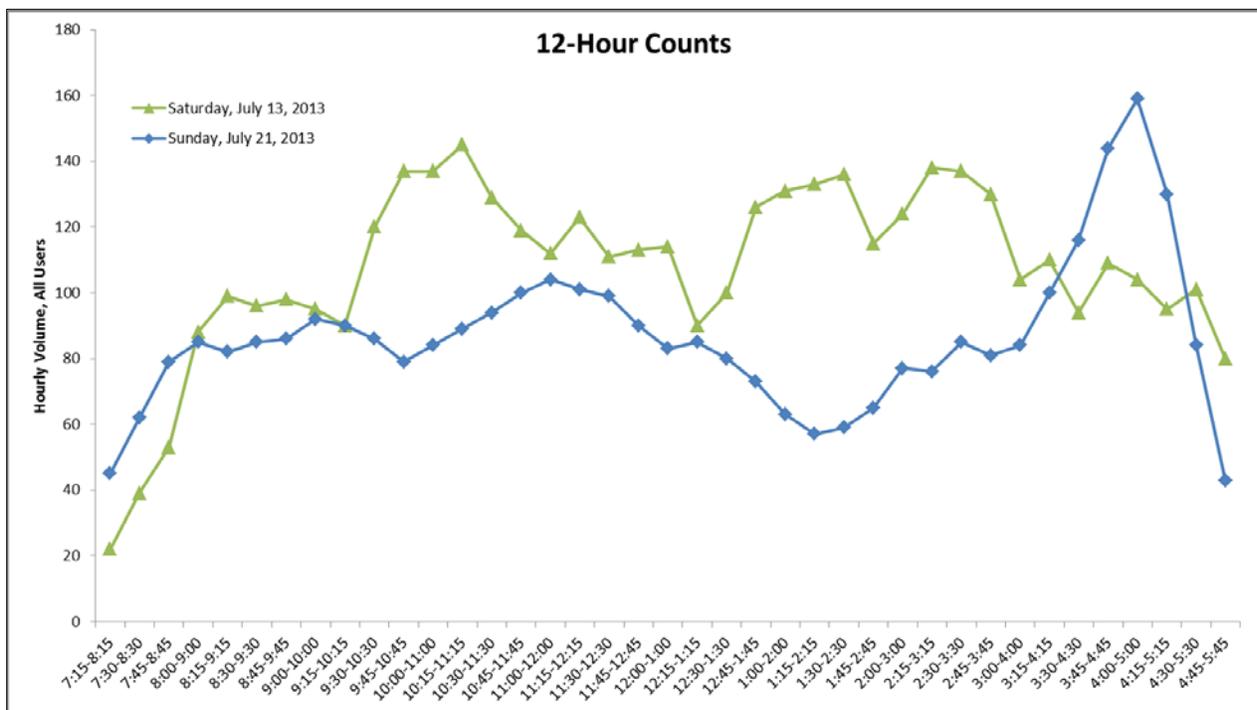
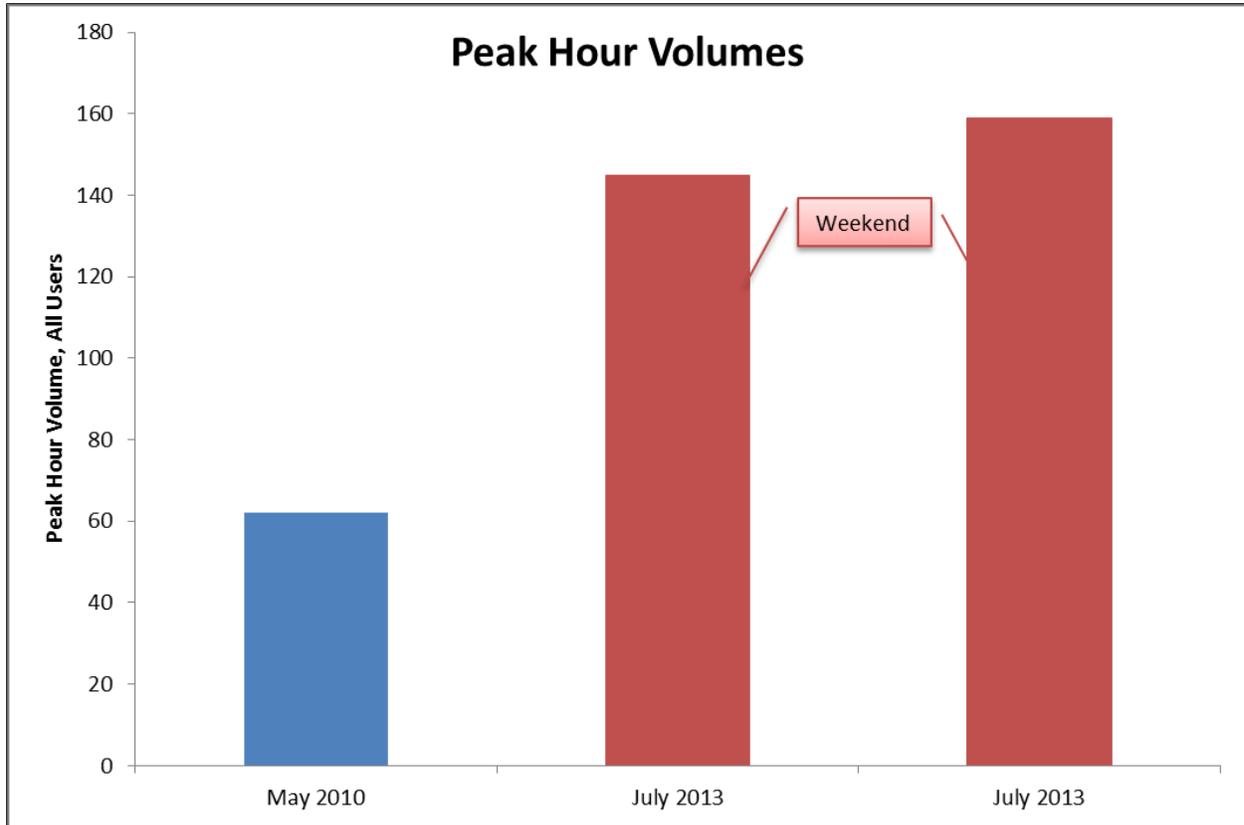


FIGURE 25
Peak Hour Volumes

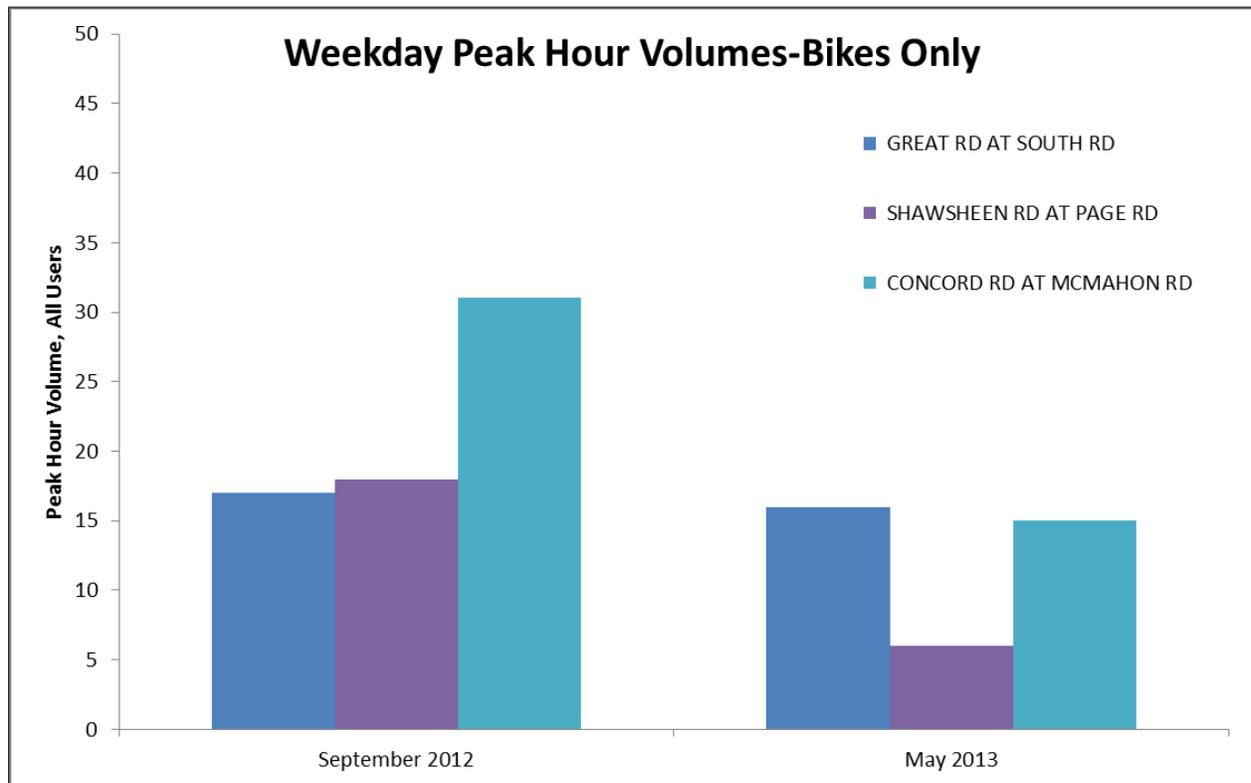


A.11 BEDFORD: GREAT RD AT SOUTH RD; SHAWSHEEN RD AT PAGE RD; CONCORD RD AT MCMAHON RD

**TABLE 11
Peak Hour Volumes**

Location	Month-Year	Day	Peak Hour	Period	Volume
GREAT RD AT SOUTH RD	September 2012	Tu	7:15-8:15	AM	17
GREAT RD AT SOUTH RD	May 2013	M	7:15-8:15	AM	16
GREAT RD AT SOUTH RD	May 2013	Tu	7:15-8:15	AM	25
SHAWSHEEN RD AT PAGE RD	September 2012	W	7:30-8:30	AM	18
SHAWSHEEN RD AT PAGE RD	May 2013	M	7:15-8:15	AM	6
CONCORD RD AT MCMAHON RD	September 2012	W	7:30-8:30	AM	31
CONCORD RD AT MCMAHON RD	May 2013	F	7:15-8:15	AM	15

**FIGURE 26
Weekday Peak Hour Bicycle Volumes**



A.12 METHUEN: METHUEN RAIL TRAIL AT RAILROAD ST PARKING LOT

**TABLE 12
Peak Hour Volumes**

Date	Day	Peak Hour	Period	Volume
07-MAY-2013	Tu	5:30-6:30	pm	17
09-MAY-2013	Th	4:45-5:45	pm	8
11-MAY-2013	Sa	2:00-3:00	mid	12

**FIGURE 27
Weekday Peak Hour Volumes**

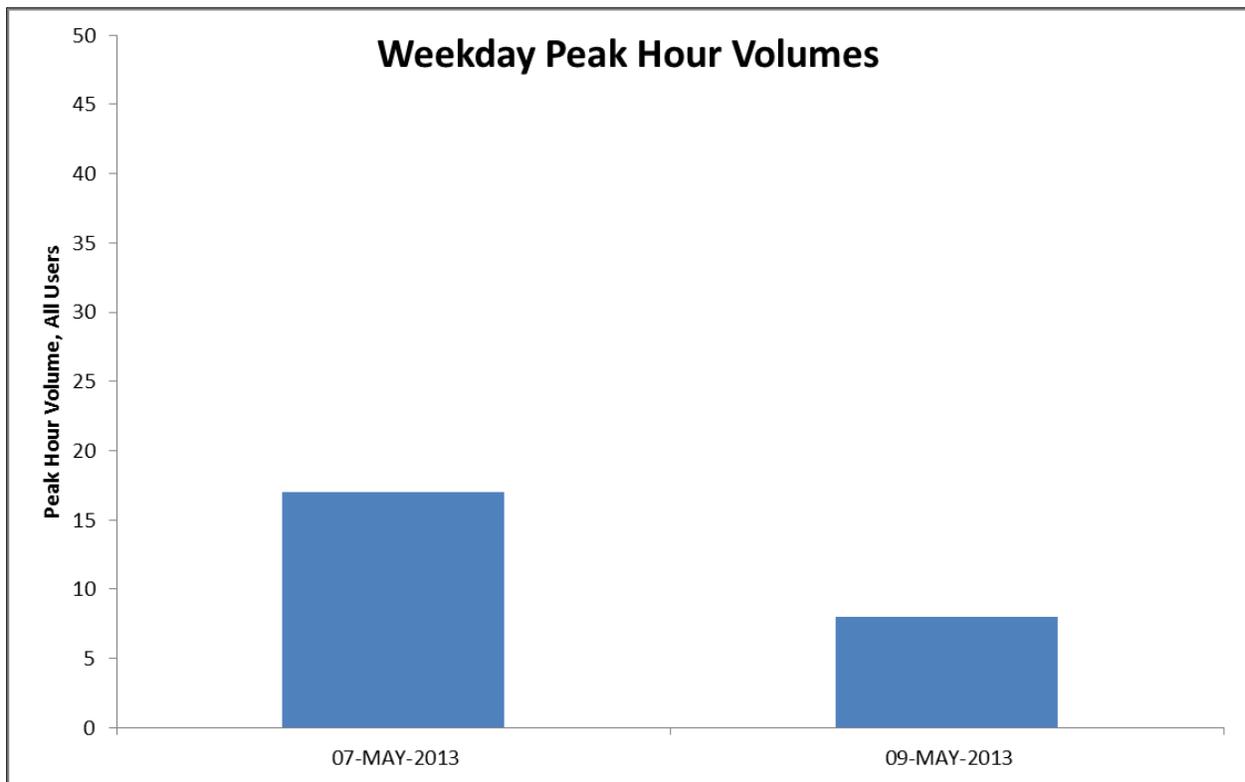
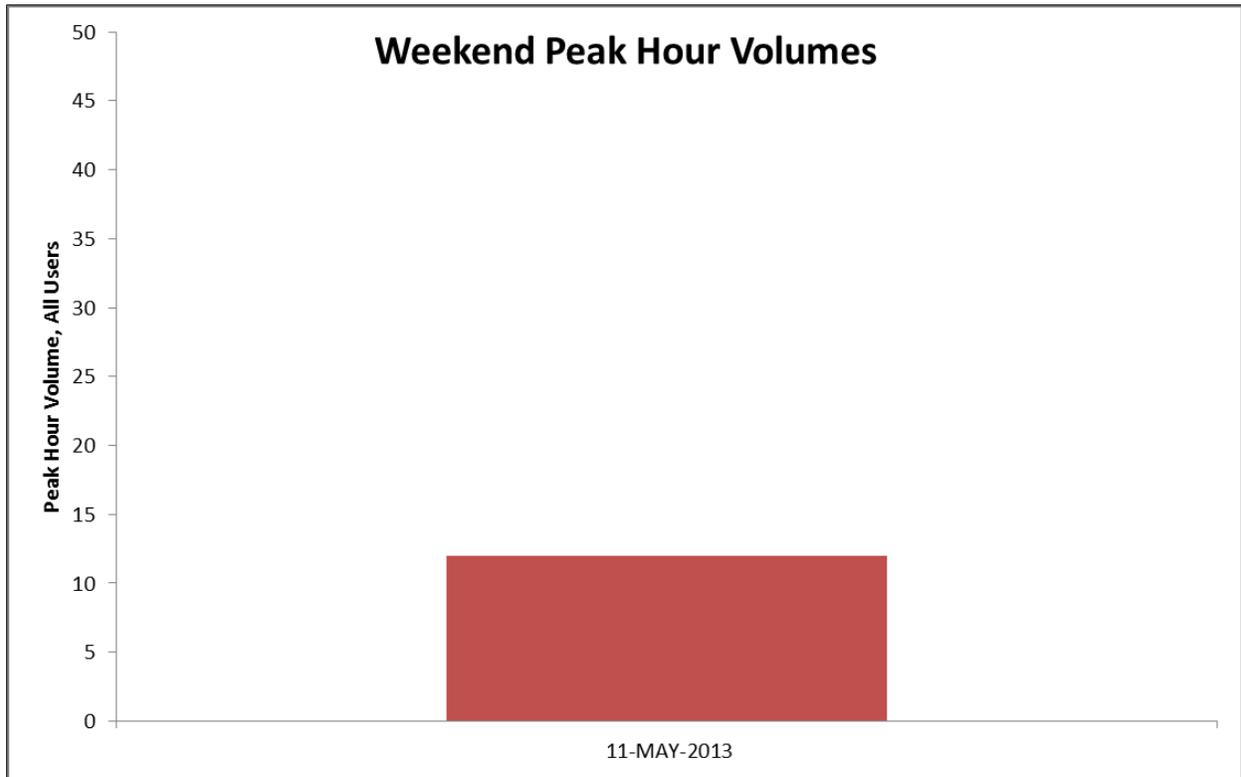


FIGURE 28
Weekend Peak Hour Volumes



A.13 NEEDHAM: KENDRICK ST AND HUNTING RD

TABLE 13
Peak Hour Volumes

Date	Day	Peak Hour	Period	Volume
07-JUL-2013	Su	9:45-10:45	AM	92
04-JUL-2013	Th	1:45-2:45	MID	37
05-JUL-2013	F	12:45-1:45	MID	16
06-JUL-2013	Sa	12:45-1:45	MID	27
11-AUG-2013	Su	9:00-10:00	AM	106
12-SEP-2013	Th	4:00-5:00	PM	62

FIGURE 29
Weekday Peak Hour Bicycle Volumes

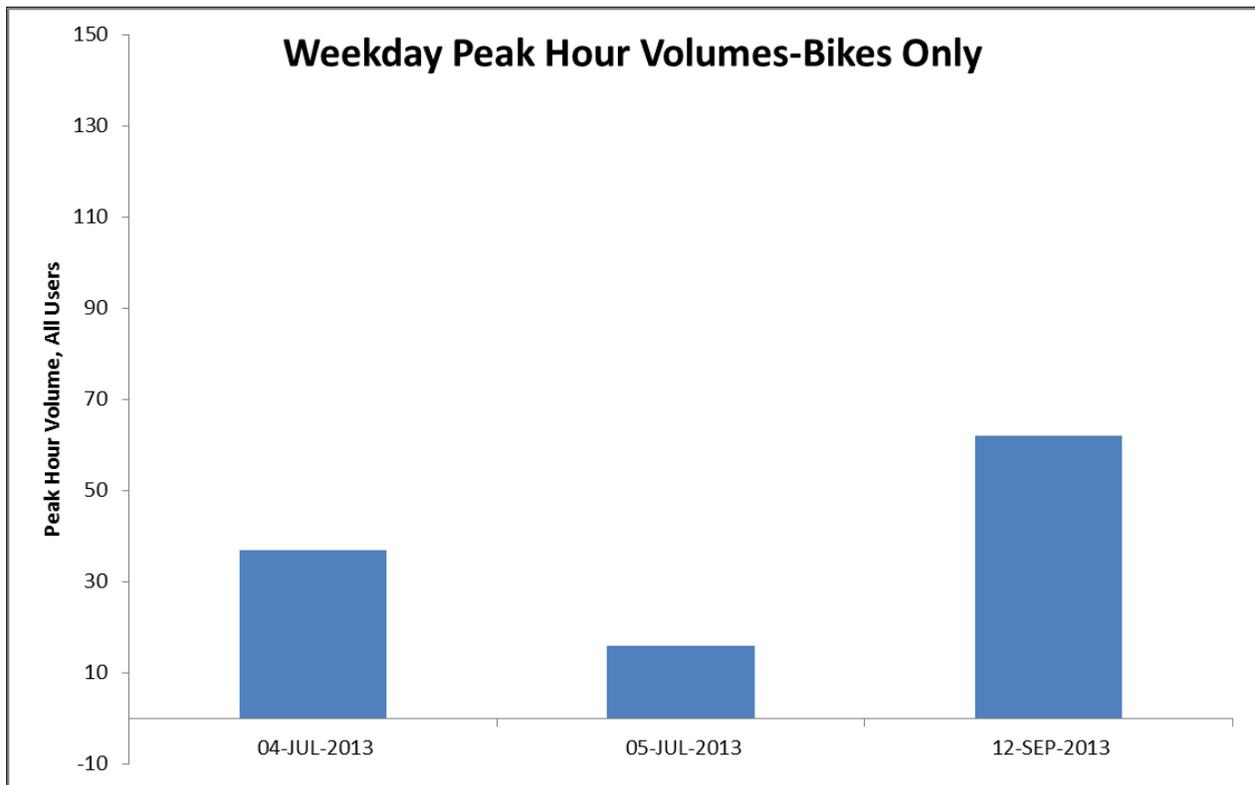
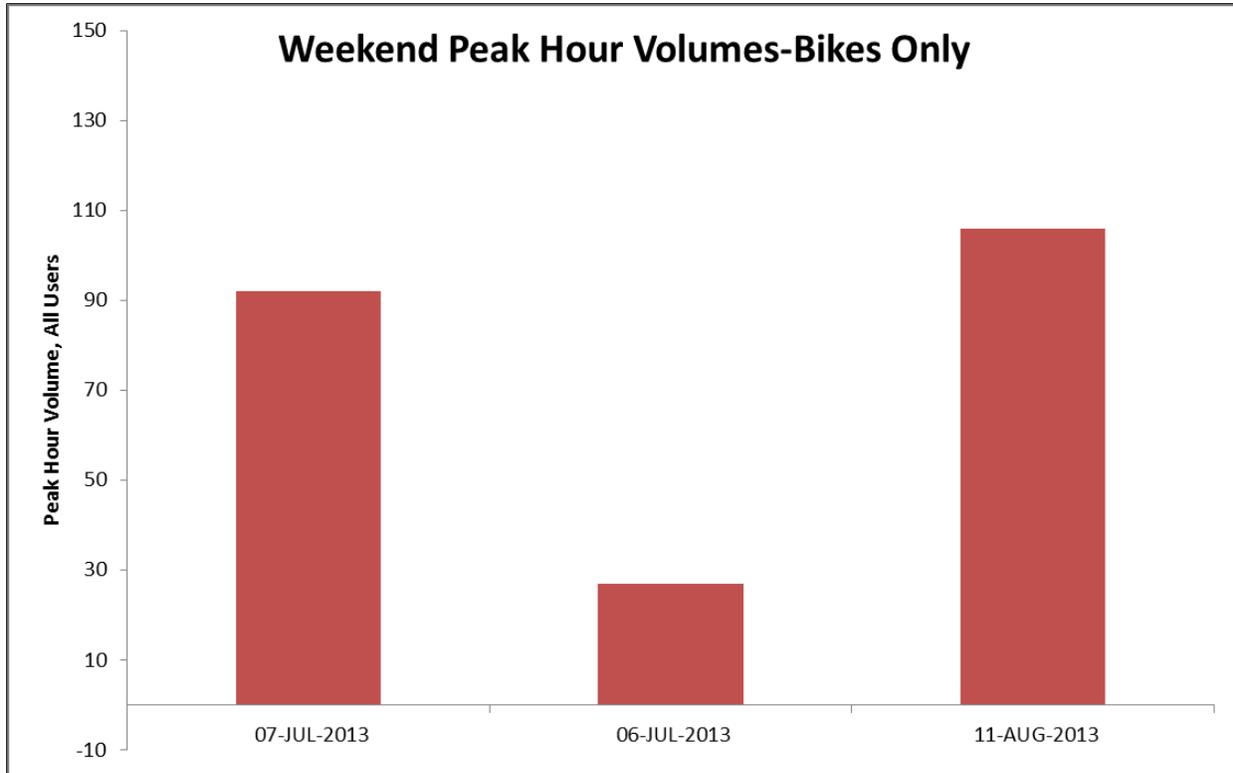


FIGURE 30
Weekend Peak Hour Bicycle Volumes



A.14 WESTFIELD/SOUTHWICK: COLUMBIA GREENWAY RAIL TRAIL AT SOUTHWICK BORDER

**TABLE 14
Peak Hour Volumes**

Date	Day	Peak Hour	Period	Volume
11-MAY-2013	Sa	12:00-1:00	MID	28
07-MAY-2013	Tu	5:30-6:30	PM	64
09-MAY-2013	Th	5:00-6:00	PM	15

**FIGURE 31
12-Hour Counts**

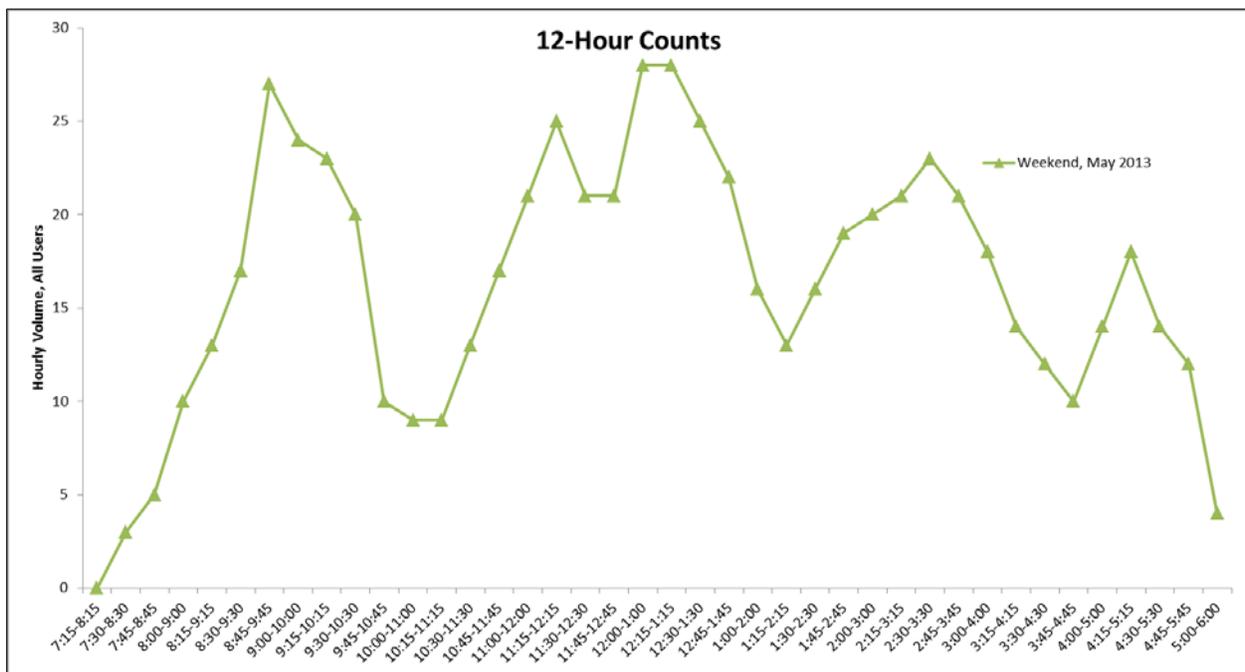


FIGURE 32
Weekday Peak Hour Volumes

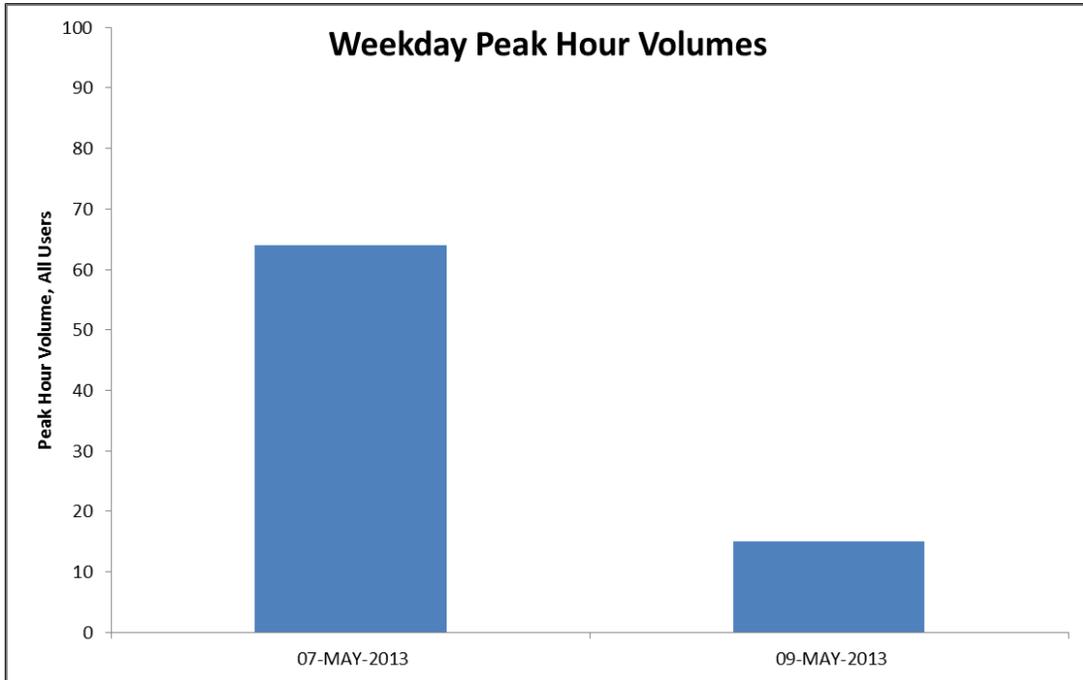
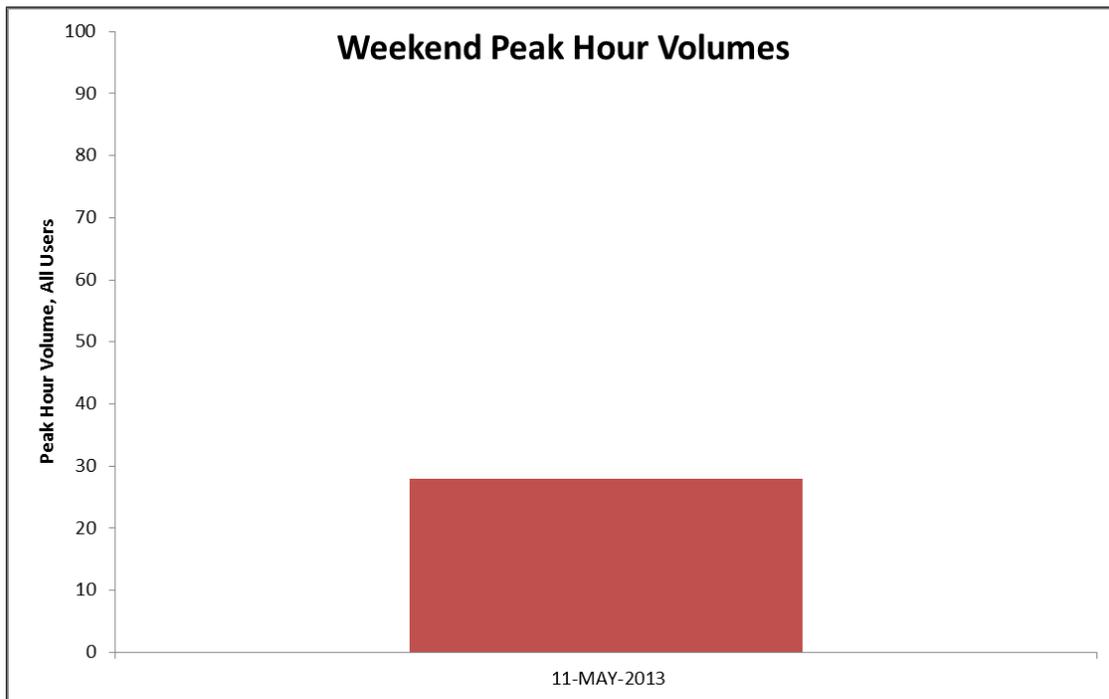


FIGURE 33
Weekend Peak Hour Volumes

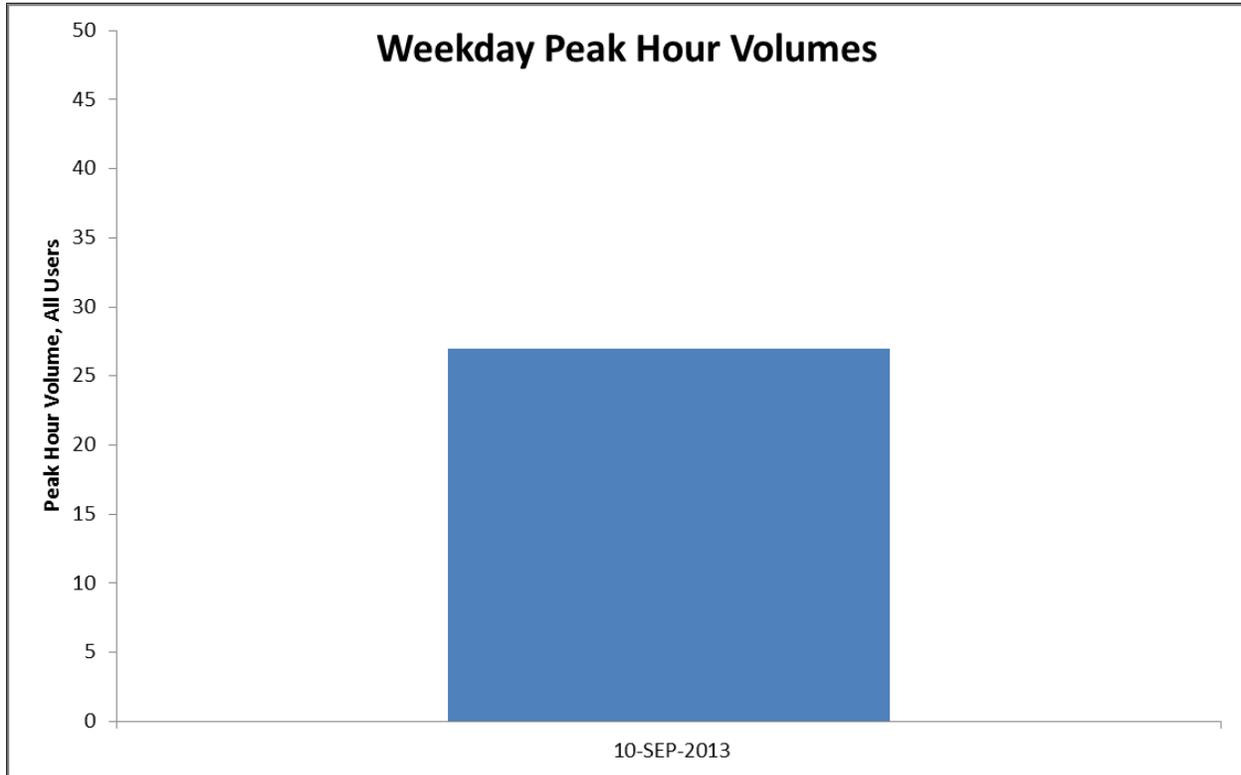


A.15 AMESBURY: AMESBURY RIVERWALK/POWWOW WALK

TABLE 15
Peak Hour Volumes

Date	Day	Peak Hour	Period	Volume
10-SEP-2013	Tu	4:15-5:15	PM	27

FIGURE 34
Weekday Peak Hour Volumes



A.16 QUINCY: HANCOCK ST AT WASHINGTON ST; NEPONSET BRIDGE AT QUINCY SHORE DRIVE; WOLLASTON BEACH AT 790 QUINCY SHORE DRIVE

**TABLE 16
Peak Hour Volumes**

Location	Month-Year	Day	Peak Hour	Period	Volume
HANCOCK STREET AT WASHINGTON STREET	September 2013	W	4:00-5:00	PM	17
NEPONSET BRIDGE AT QUINCY SHORE DRIVE	September 2013	W	8:00-9:00	AM	18
WOLLASTON BEACH AT 790 QUINCY SHORE DRIVE	September 2013	W	5:00-6:00	PM	16
NEPONSET BRIDGE AT QUINCY SHORE DRIVE	September 2013	Sa	12:00-1:00	MID	13

**FIGURE 35
Peak Hour Bicycle Volumes**

