



Illegal Parking in Bike Lanes: An Analysis of Parking Authority Violations Data January 2015

Background

In November 2013, Bicycle Coalition of Greater Philadelphia (BCGP) staff started a dialogue with the Philadelphia Parking Authority about the need to address illegal parking in bike lanes. In Philadelphia, you can load/unload your car or commercial delivery truck for up to 20 minutes in a bike lane if that bike lane is marked with "No Parking" signs.

Followers of the BCGP facebook page and twitter accounts were documenting incidences of illegal parking but there was no ensured way to determine what PPA was doing to address the matter.

BCGP suggested to PPA that they embark on a social media campaign to identify problem locations. PPA took up the challenge and launched #unblockbikelanes in December 2013. The intent of this campaign was to gather information about the locations that got tweeted the most often to help discern the location of problem spots.

On March 31, 2014, Bicycle Coalition staff met with representatives of the Philadelphia Parking Authority (PPA) to review the first quarter data results of the social media campaign. The streets that were getting the most tweets were Spruce Street, Pine Street, 13th Street and 22nd Street.

We suggested that the PPA designate a single officer to be responsible for the streets where violations in bike lanes were the most prevalent. In particular, we asked PPA to consider putting an enforcement officer on a bicycle to monitor those streets. We also discussed the bicycle community's ongoing concern with illegal Sunday parking on Spruce Street and need for further clarification of where designated areas for religious institution service parking were located.

In July, PPA and BCGP staff met again. Although BCGP's ideas were further discussed, no formal response was provided. In September 2014, BCGP and PPA representatives met with Managing Director Richard Negrin to discuss these issues, in particular to discuss the problems with parking by police vehicles in the 13th Street bike lane across from the Judicial Center. The Managing Director had taken steps to try to address the 13th Street problem over the summer of 2014, to some positive effect.

In November of 2014, PPA supplied BCGP with quarterly parking violation data for 15 street segments covering the period April 2013 through September 2014. This data detailed the number of violations written on these street segments, by both the Philadelphia Parking Authority (PPA) and the Philadelphia Police Department (PPD). Figure 1 summarizes this data.

We decided do a deeper dive into the data to see what we could conclude from it.

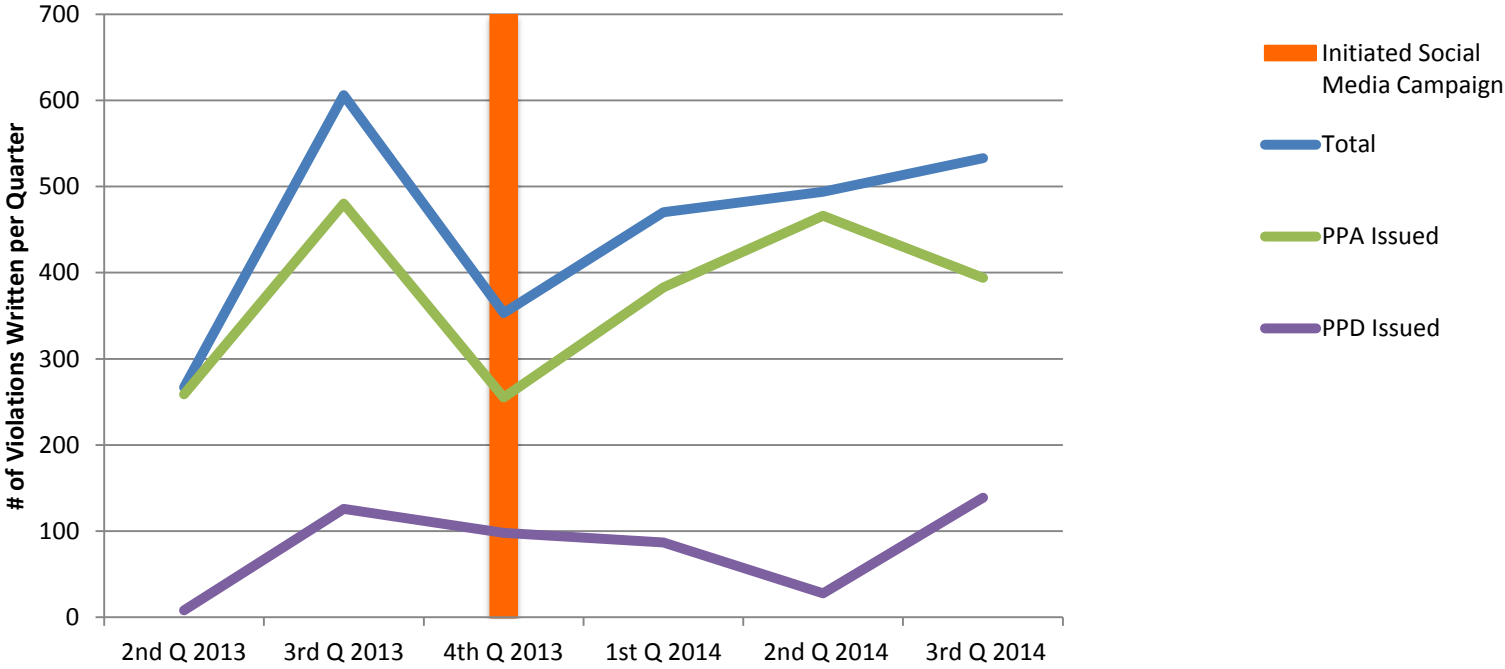
Trends in Number of Violations Written by both PPA & PPD

The Philadelphia Parking Authority (PPA) writes the majority of violations; however, the Philadelphia Police Department (PPD) is also authorized to write violations. Figure 1 below shows the number of violations written by both PPA and PPD for the six quarters of data provided. Total number of violations issued by the PPA has increased since our first conversation in the 4th quarter of 2013. PPA violations in the 3rd quarter of 2014 were up 55% over 4th quarter 2013 and total violations written (PPA&PPD) were up 50%. This remainder of this report focuses on the PPA written violations.

Despite these increases, enforcement efforts appear to be erratic and inconsistent as evidenced by the sharp increase in the 3rd quarter of 2013 followed by a sharp decrease in the 4th quarter of 2013. Figure 1 graphically displays the inconsistency in enforcement. Levels of PPA enforcement never again reached the height of the 3rd quarter 2013. Third quarter 2014 violations are 20% below third quarter 2013. There does not appear to be a sustained effort to enforce parking regulations.

Figure 1 - Breakdown of Citations by Issuing Authority & Quarter

Violations Issued by PPA & PPD



High violation street segments

Total PPA Violations Written

There were three street segments with over 300 total violations written over the six quarters of data: 1000 to 2300 Spruce Street, 300 to 2100 Pine Street, and the intersection of 24th and Fairmount Streets. These three street segments comprise over 80 percent of the total violations written by PPA over the six quarters. Unfortunately, there are no clear trends in enforcement even for these three street segments. (See Figure 2) Of these three street segments, only Pine Street saw a marked increase (88%) in violations written. (See Table 1)

Figure 2 - Three Top Street Segments for Total PPA Violations Written by Quarter

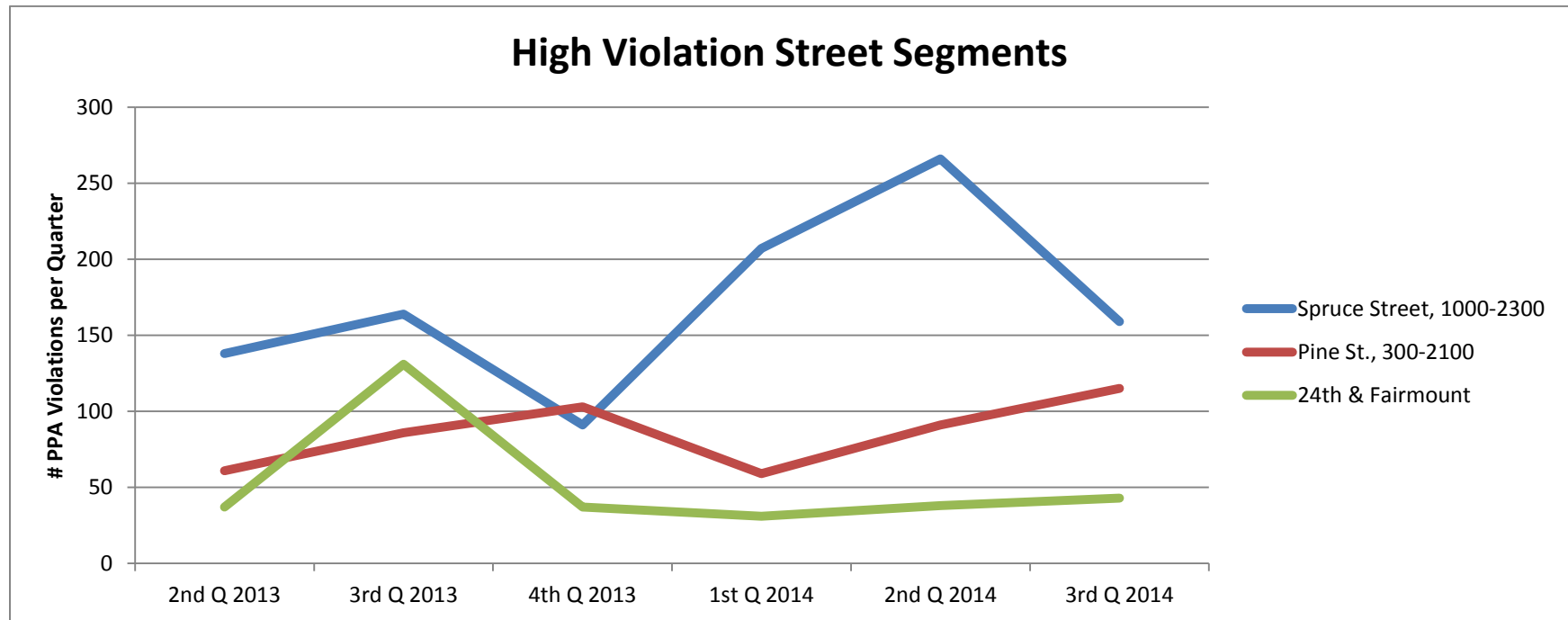


Table 1

Street Segment	# Violations 2 nd Q 2013	# Violations 3 rd Q 2014	% Change
Spruce, 1000-2300	138	159	15%
Pine, 300-2100	61	115	88%
24 th & Fairmount	37	43	16%

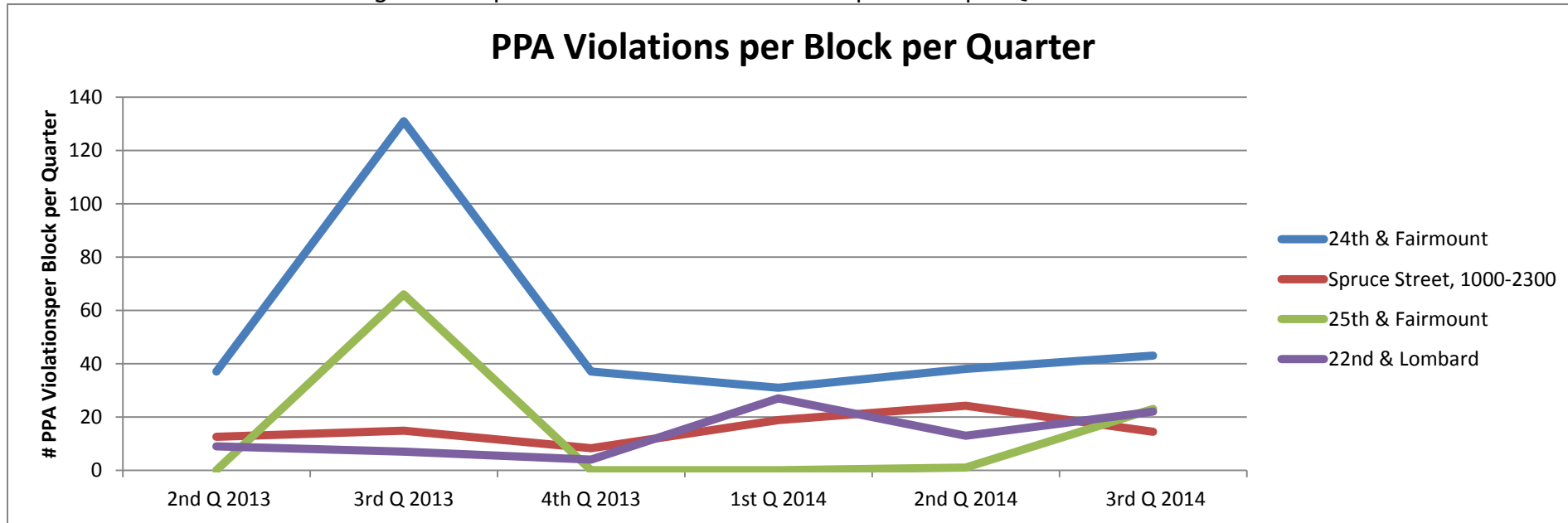
PPA Violations Written Per Block by Quarter

Looking at total violations can be misleading, as longer segments will tend to have more violations, all else being equal. To better evaluate performance, violations per block per quarter compensates for variations in street segment lengths. Indeed, PPA violations measured per block per quarter show a slightly different picture than total violations. There are four streets that average over ten violations per block per quarter over the six quarters: 24th & Fairmount, Spruce, 25th & Fairmount, and 22nd & Lombard. Table 2 below compares average number of violations per block pre-social media campaign (3rd quarter 2013) and three months after the social media campaign. Figure 3 shows the trend in PPA written violations per block per quarter on the four streets with the highest violations.

Table 2

Street	# Violations per block 2 nd Q 2013	# Violations per block 3 rd Q 2014	% Change
24 th & Fairmount	37	43	16%
Spruce 1000 – 2300	13	14	15%
25 th & Fairmount	0	23	NA
22 nd & Lombard	9	22	144%

Figure 3 - Top Four Streets for PPA Violations per Block per Quarter



In a comparison of violations per block per quarter, Pine Street is no longer a high violation street. 24th and Fairmount had the highest number of violations, in part due to a spike in enforcement in the third quarter of 2013. Spruce Street remains in second place. 25th and Fairmount has the third highest number of violations, also with an unusually high number of violations in the third quarter of 2013. 22nd and Lombard ranks fourth. Although these four streets all have significantly more violations written than the remaining streets, only 22nd & Lombard saw a significant increase (144%) in enforcement over the six quarters. Table 3 summarizes the data for all street segments¹ providing: the average number of PPA violations written per block per quarter for the three quarters both pre- and post-social media campaign, the percentage change between the two and the overall average for all six quarters.

¹ Streets such as Pine and Spruce that had multiple segments in the raw data were consolidated to facilitate analysis. This resulted in a total of 12 street segments for analysis down from the original 15 street segments.

Table 3-Ranking of Streets by Average Total Number of PPA Violations per Block per Quarter

Ranking	Street	Average of 2013	Average of 2014	% Change	Total Average
1	24th & Fairmount	68.3	37.3	-45%	52.8
2	25th & Fairmount	22.0	8.0	-64%	15.5
3	Spruce	9.4	15.0	61%	15.0
4	22nd & Lombard	6.7	20.7	210%	13.7
5	400-500 22nd	3.0	9.5	217%	6.3
6	3700 Market	4.0	8.0	100%	6.0
7	N. 13th Street, 99-100	2.0	8.8	342%	5.4
8	Pine, 300-2100	4.4	4.6	6%	4.5
9	2300 Locust	1.0	1.0	0%	1.0
10	Lombard,1000-1200	0.1	0.7	500%	0.4
11	Poplar Drive, 2900-3100	0.2	0.2	0%	0.2
12	South Street	0.2	0.0	-75%	0.1

Weekend Parking on Spruce Street

Weekend parking from 18th Street to 24th Street on Spruce Street is of particular concern to the bicycle community. By tradition, parking in the bike lane is allowed by the City for religious functions. Autos taking advantage of this religious exemption are required to display a placard issued by the church or synagogue. For more information on this, go to the [BCGP blog post](#).) The policy is not working well because: 1) cars block the bike lanes before and after religious service hours, 2) cars park in the bike lane on blocks that are not exempt for religious services and 3) no use of placards or use of illegal placards. These abuses create a potentially hazardous situation for weekend cyclists. We would like to see the policy more strictly enforced.

The PPA supplied data for the six blocks 1800-2300 of Spruce Street. PPA wrote a total of 789 violations over the six-quarter period or an average of 14 violations per block per quarter on these six blocks before the social media campaign and an average of 30 violations per block per quarter after the twitter campaign. BCGP encourages the PPA to continue to diligently enforce parking regulations in this area as it is one of the top concerns of the bicycling community and appears to be an area with high incidence of abuse of the parking privileges.

Low Violation Streets

There are eight streets out of the twelve streets analyzed that received fewer than 4 average violations per block in the three 2013 quarters (pre-social media campaign). Table 4 shows the average number of violations written before (2013) and after (2014) the social media campaign. Because violations are so low, percentage change is not as meaningful. Enforcement appears inconsistent in that four streets saw over two-fold increases in violations written, two were unchanged and one was down 75%. It is disappointing that Pine Street (highlighted in red) is part of the low violations group as it received a large number of complaints via Twitter. Despite a commitment to better enforcement PPA written violations were up only 6%.

Table 4 - Streets with Low PPA Violations per Block per Quarter

Street	Ave of 2013	Ave of 2014	% Change
3700 Market	4.0	8.0	100%
400-500 22nd	3.0	9.5	217%
N. 13th Street, 99-100	2.0	8.8	342%
Pine St., 300-2100	4.4	4.6	6%
2300 Locust	1.0	1.0	0%
South Street	0.2	0.0	-75%
Lombard, 1000-1200	0.1	0.7	500%
Poplar Drive, 2900-3100	0.2	0.2	0%

Complaints vs Violations

A twitter hashtag campaign was created to capture complaints on blocked bike lanes. Figure 4 shows the four streets with the highest number of tweets and percentage increase in the number of PPA written violations per block per quarter before and after the twitter campaign.

Table 5 shows that relative to the number of complaints tweeted for Pine Street there was only a very modest increase in the number of violations written (6%). Spruce Street saw an increase of 61%, but one might expect more given the number of complaints. BCGP applauds the PPA for their efforts on 13th Street and on 22nd & Lombard Streets. Violations increased 342% on 13th Street and 210% at 22nd and Lombard. BCGP would like to see a similar level of enforcement on Pine and Spruce Streets. (See Table 5)

Figure 4 - Twitter Campaign

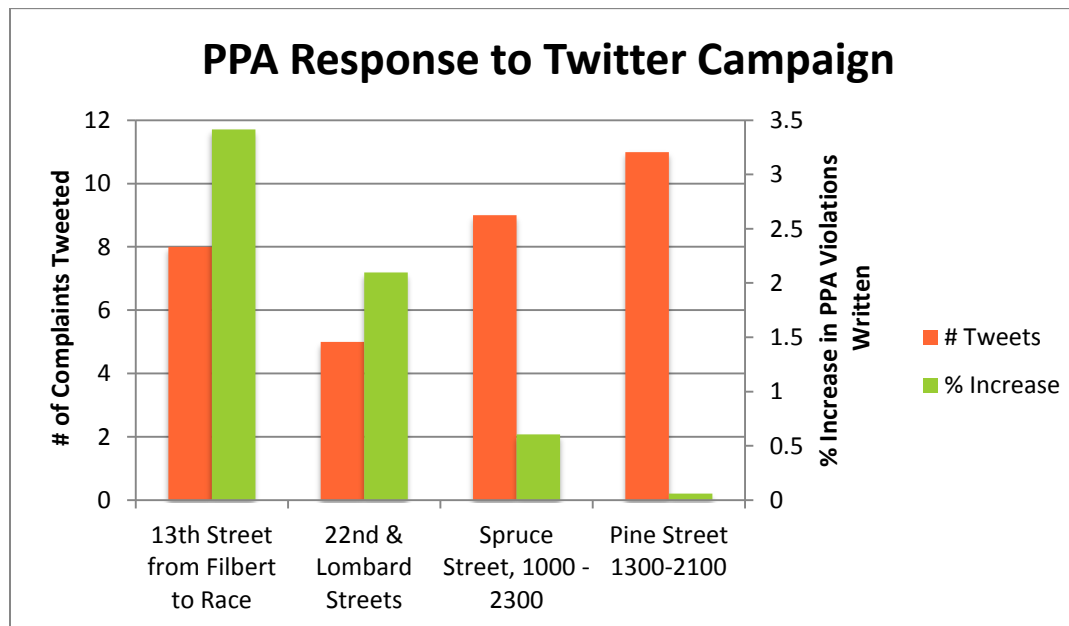


Table 5 - Twitter Campaign Data

Street	# Tweets	Average # Violations Written per 1/4 per Block Pre-Meeting	Average # Violations Written per 1/4 per Block Post-Meeting	% Increase
Pine Street from 3 rd to 20 th Streets	11	4.4	4.6	6%
Spruce, west of Broad Street	9	11.9	19.2	61%
13 th Street from Filbert to Race	8	2.0	8.8	342%
22 nd & Lombard Streets	5	6.7	20.7	210%

Source: Data provided by Philadelphia Parking Authority

The PPA has increased its enforcement on these four streets targeted due to high twitter complaints. Despite these increases, violations at 22nd and Lombard Streets remain high. PPA wrote fewer than two tickets per week at 22nd and Lombard after social media campaign. Although BCGP appreciates that there has been an increase in violations written, more sustained efforts on the part of the PPA to target these areas to deter illegal parking is warranted.

Summary of Findings

The big take away from the BCGP analysis of the PPA data is that enforcement efforts before and after a concerted effort to address violators has been mixed and inconsistent. There were some successes, such as 13th Street where illegal parking by law enforcement personnel appears to have resolved due to more diligent enforcement. However, there was no clear indication of consistent efforts across the board, nor is there evidence of consistent targeting of high priority streets such as Spruce and Pine Streets.

Although the total number of violations written over the six quarter increased 52%, there are no clear trends for PPA violations from quarter to quarter. Individual streets vary greatly in their level of enforcement from quarter to quarter. Level of enforcement also varies from street to street. Three street segments had a decrease in violations written, two were unchanged and seven saw increases varying from 6% to 500%.

The social media campaign launched by the PPA identified Spruce, Pine 13th & 22nd Streets as the top problem locations. The PPA response to this information, as measured by the average number of violations per block per quarter written in the three quarters

prior to the social media campaign versus the three quarters post the campaign, was most effective on short stretches. The 2 blocks of N. 13th Street between Filbert and Race saw an increase from 2 violations to almost 9 violations written per block per quarter. Likewise the number of violations written for the corner of 22nd and Lombard tripled from just under 7 to just under 21. On the longer stretches, increases in violations were much more modest. Spruce Street (1000 to 2300 blocks) violations written per block increased only 61% (from 12 to 19 violations) and Pine Street (300 to 2100 blocks) increased only 6% (from 4.4 to 4.6 violations).

Pine Street highlights the inconsistency in enforcement. Overall complaints were high and violations written were low. The increase in violations written in the three quarters prior to the social media campaign versus post social media campaign was a mere 6%, and the number of tickets written per block per quarter is low at only 4.6 violations. This quarterly rate translates to approximately one violation per block written every three weeks.

Average number of violations written per quarter doubled to 30 on Spruce Street from (1800 to 2300 blocks), where church parking in the bike lane is allowed by the City. Despite this increase, BCGP continues to receive complaints of illegal parking.

Conclusions

- Although violations written by PPA have increased, PPA is not adequately targeting the problem hotspots. More enforcement is warranted particularly on Pine Street.
- Enforcement on individual streets varies greatly from quarter to quarter.
- Enforcement appears to be most effective in targeted blocks than on larger street segments.
- Weekend church/synagogue parking needs stricter enforcement.

Bicycle Coalition Recommendations

The Bicycle Coalition's recommendations to address Illegal Parking at Bicycle Facilities:

- *Increase Enforcement.* Step up enforcement on the four Center City bike lanes that are most frequently parked in by designating a full time parking enforcement officer who focuses on bike lanes only.
- *Eliminate Parking in Bike Lanes by PPA and Police Officers* (except in an emergency.)
- *Establish a PPA Complaint Phone Number.* Set up a bike lane complaint phone number where individuals can leave messages about problems and get their calls returned by a supervisor (similar to the taxi complaint line).
- *Enforce Weekend Parking Rules on Spruce & Pine.* Increase enforcement of weekend parking rules to eliminate parking outside of the zones granted to religious institutions. The designated zones where weekend parking is permitted need to be signed so that the public is made aware of the zones and times.
- *Clarify that scooters are not permitted to park in bike corrals.* Place signs at all bike corrals that only bikes are permitted. Train PPA officers about rules that motorized scooters or motorcycles are not allowed in designated bike corrals.