

# SEATTLE EVENING PAID PARKING STUDY

*PUBLISHED APRIL 2014*

*Extending on-street parking until 8 PM has positively helped people find parking in the early evening in several of our most vibrant business districts.*



# SDOT EVENING PAID PARKING REPORT

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# SDOT EVENING PAID PARKING REPORT

## Summary

This report provides background information on evening paid parking, a comparison of occupancy rates before and after implementation, and an overview of evening parking occupancy data from the 2013 Annual Paid Parking Study.

The Seattle Department of Transportation (SDOT) manages 12,000 on-street paid parking spaces in about 20 downtown and neighborhood business districts. Since 2010, we have set the rates, hours of operation and maximum time limits based on annually collected data through our Performance-Based Parking Pricing Program. This program relies on occupancy data and parking management to reach a goal one to two spaces available per block in commercial areas. This parking availability makes visitor and shopper access easier and results in less traffic congestion and vehicle emissions from circling vehicles.

In 2011 and 2012, SDOT implemented evening paid parking until 8 PM in eight neighborhoods with active nightlife, representing around 45 percent of total citywide on-street paid spaces. In all but the Chinatown/International District (ID), the time limit after 5 PM is three hours in recognition that the daytime two-hour time limit does not work for evening attractions.

Based on 2013 data results, evening parking occupancy continues to be high, both in neighborhoods with and without evening paid parking. In 2013, 60 percent of paid parking areas or subareas have higher occupancy rates in the evening than during the day. Neighborhoods with lower evening occupancy than daytime occupancy are generally limited to those in and around downtown Seattle. Based on extended data collection in four neighborhoods, evening parking occupancy rates generally plateau around 7 PM or 8 PM.

Comparing occupancy surveys before and after evening paid parking in six specific neighborhoods reveals that evening paid parking has increased on-street parking availability. On average, evening paid parking reduced the 6 PM occupancy rate in these neighborhoods from 93 percent to 73 percent and the 7 PM occupancy from 103 percent to 85 percent. This report provides details by neighborhood.

# SDOT EVENING PAID PARKING REPORT

## Introduction

SDOT's Performance-Based Parking Pricing Program, established with 2010 legislation in the Municipal Code, works to ensure on-street parking is convenient and easy to find. Rate and other adjustments are made on an annual basis so that one or two spaces are open and available on each blockface throughout the day. We conduct an annual citywide survey of paid parking occupancy and compare results against a target range of 70 – 85 percent, plus an annual watch list. Results from this process guide rate, hours of operations, and time limit changes.<sup>1</sup>

Through this program, most parking rate or time limit adjustments have been applied to daytime parking. However, in many areas, evening demand is often higher than daytime demand. In 2013, approximately 60 percent of paid evening areas had higher occupancy levels during the evening than during daytime hours.<sup>2</sup> Areas with nightlife attractions that are adjacent to residential areas (such as Capitol Hill, Fremont, and Ballard) show a sharp increase in occupancy leading up to the end of paid parking hours.

Recognizing that evening parking demand outpaces supply in many areas, SDOT extended paid parking hours in certain neighborhoods from 6 PM to 8 PM, starting in 2011. These neighborhoods are identified in **Table 1**. This report provides information on how occupancy rates changed before and after the implementation of evening paid parking and current evening parking occupancy data.

<b>Neighborhood</b>	<b>Evening Paid Parking Implementation Completion</b>
Commercial Core	June 2011
Belltown	August 2011
Chinatown-ID	August 2011
Pike-Pine	September 2011
Capitol Hill	September 2011
University District	October 2011
Uptown	October 2011
Denny Triangle South	May 2012

<sup>1</sup> SDOT set this standard citywide target range in 2013 to simplify from earlier targets that varied by neighborhood.

<sup>2</sup> For more details about the parking management program, please refer to [http://www.seattle.gov/transportation/parking/signs\\_icons.htm](http://www.seattle.gov/transportation/parking/signs_icons.htm)

# SDOT EVENING PAID PARKING REPORT

## RATIONALE FOR EVENING PAID PARKING

In many cities, paid parking hours have traditionally ended at 6 PM. Researchers have noted that this can be tied to two factors<sup>3</sup>:

- Historically, businesses districts were dominated by retail that generally closed by 6 PM
- Rates and time limits in place during the day to create turnover may not be applicable to preventing evening parking shortages. Historically, traditional meters did not allow for differential rates and time limits over the course of the day.

As parking meter technology has evolved and evening attractions in cities have increased, many cities have moved to extend on-street paid parking hours into evening and night hours. Based on a web survey in 2013, current examples include:

- **Washington, DC:** Paid parking in eight “premium demand zones” extends until 10 PM, with meters operating until 6:30 PM in other neighborhoods
- **West Hollywood, CA:** Paid parking in high demand locations extends until 2 AM, with meters operating until 8 PM, 10 PM, or 12 AM in other neighborhoods
- **Bloomington, IN:** Downtown meters operate until 10 PM
- **Boston, MA:** All city meters operate until 8 PM
- **Atlanta, GA:** In entertainment, restaurant, and hotel zones, meters operate until 10 PM, with hours extending until 6 PM or 7 PM in other areas
- **Portland, OR:** Parking meters in one area of the Lloyd District operate until 10 PM, meters in downtown Portland operate until 7 PM, and meters in other areas operate until 6 PM
- **Vancouver, BC:** All city meters operate until 10 PM daily

Just as paid parking during the day can improve access to business districts, extending paid parking can enhance access to areas with active evening attractions. Evening paid parking encourages overnight or long-term parkers to park off-street or out of commercial business districts during the early evening peak. This prioritizes street parking in key locations for shorter-term uses, and keeps parking available for local business customers.

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<sup>3</sup> Gregory Pierce & Donald Shoup (2013): “Getting the Prices Right,” *Journal of the American Planning Association*, 79:1, 67-81.

# SDOT EVENING PAID PARKING REPORT

## Influence of Evening Paid Parking in Seattle

SDOT has collected annual parking occupancy data since 2010, allowing for a comparison of evening occupancy before and after evening paid parking implementation. This section contains parking occupancy data for neighborhoods where the evening rate implementation and data collection schedules allowed for comparison.<sup>4</sup> **Figure 1** provides the 6 PM and 7 PM occupancy rates in these neighborhoods before and after evening paid parking. **Figures 2 through 11** provide full afternoon and evening parking occupancy detail for each neighborhood. Unless otherwise indicated, parking time limits were two hours at the time of the survey. In all figures, dashed lines or bars indicate data before evening paid parking.

There are a few caveats to comparing occupancy data over different years. Changes in occupancy after implementation of evening paid parking could be partly based on other reasons. These include:

- Additional changes to rates and time limits, which occurred in multiple areas
- Different blockfaces included in the annual survey
- Neighborhood changes, such as new developments or popular new attractions
- Seasonal variation, as data were collected during different months from year to year
- Random variation, as occupancy observations are gathered for only one day each year

Figure 1 indicates that there was an increase in evening (6 PM – 8 PM) parking availability in most areas after the implementation of evening paid parking rates. The only exception is the Uptown Periphery where occupancy slightly increased at 7 PM after the implementation of evening paid parking.

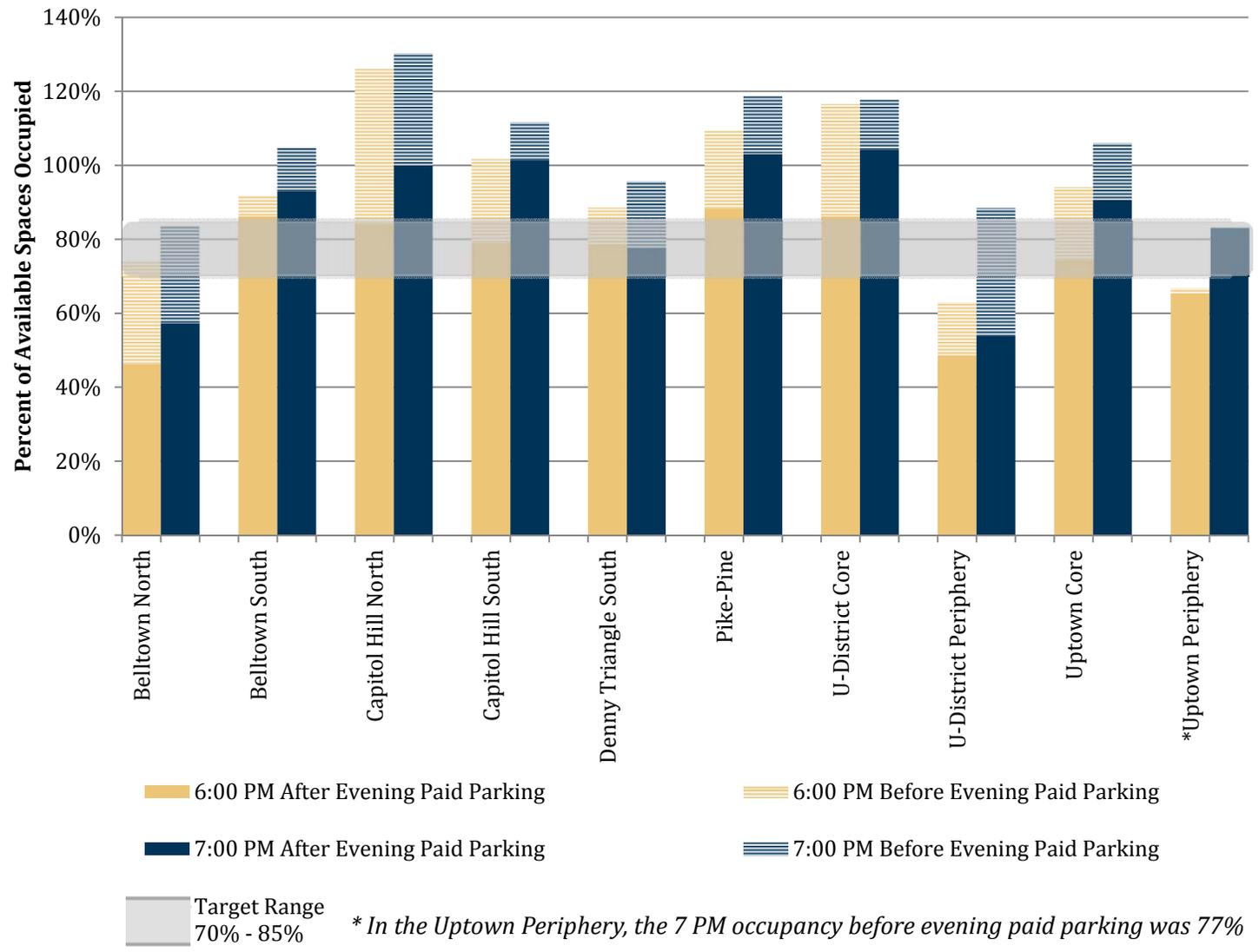
Even with the decrease in parking occupancy after installation of evening paid parking, occupancy remains high in many neighborhoods. The biggest change in occupancy is seen at 6 PM, which was previously the first hour of free evening parking. In most neighborhoods, the 6 PM occupancy after implementing evening paid parking generally aligns with the target occupancy of 70 – 85 percent. By 7 PM, most of the areas surveyed are above the target occupancy, but more parking is available as compared to before the change in hours. Except for the University District Periphery, no areas saw a precipitous drop in occupancy with the addition of evening paid parking. Occupancies over 90 percent generally indicate squeeze-in and illegal parking, with parking too close to driveways, fire hydrants, or intersections.

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<sup>4</sup> Unfortunately, for comparison purposes Commercial Core and Chinatown/ID areas had to be excluded due to lengthy implementation schedules and further changes to the paid parking area, respectively.

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**Figure 1. Neighborhood Comparison of Before and After Evening Paid Parking**

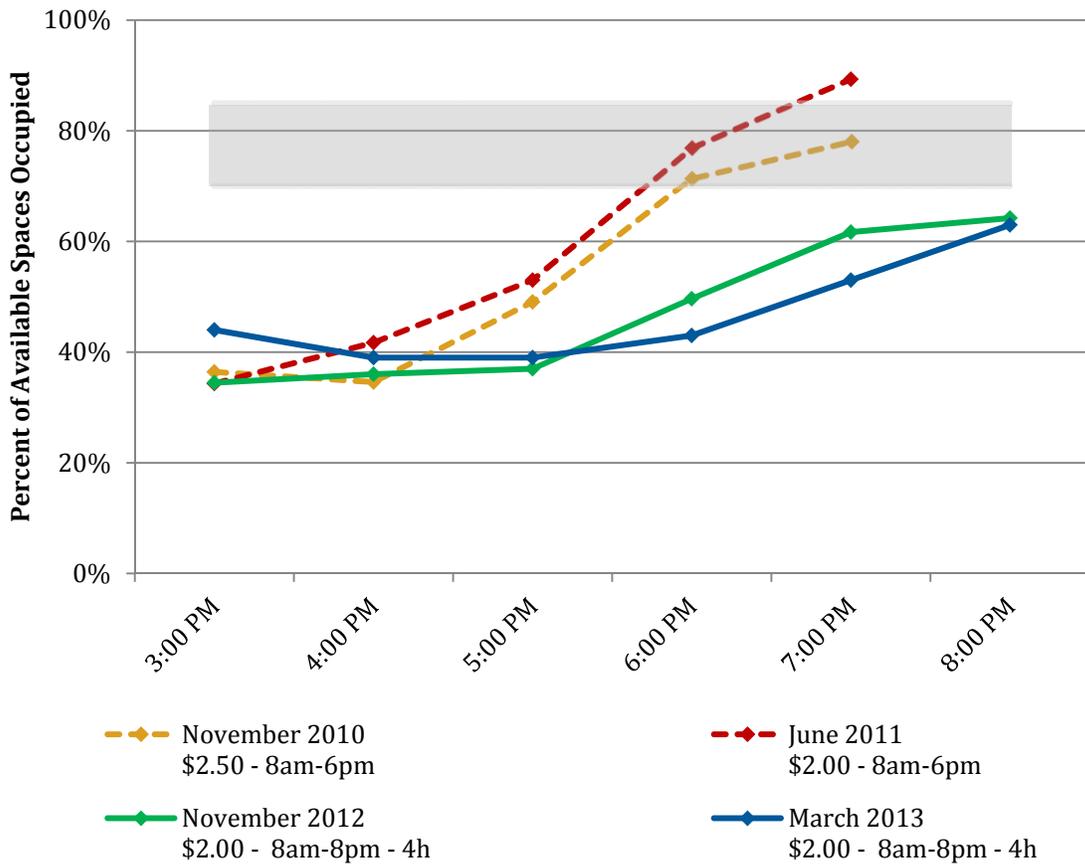


# SDOT EVENING PAID PARKING REPORT

## Belltown

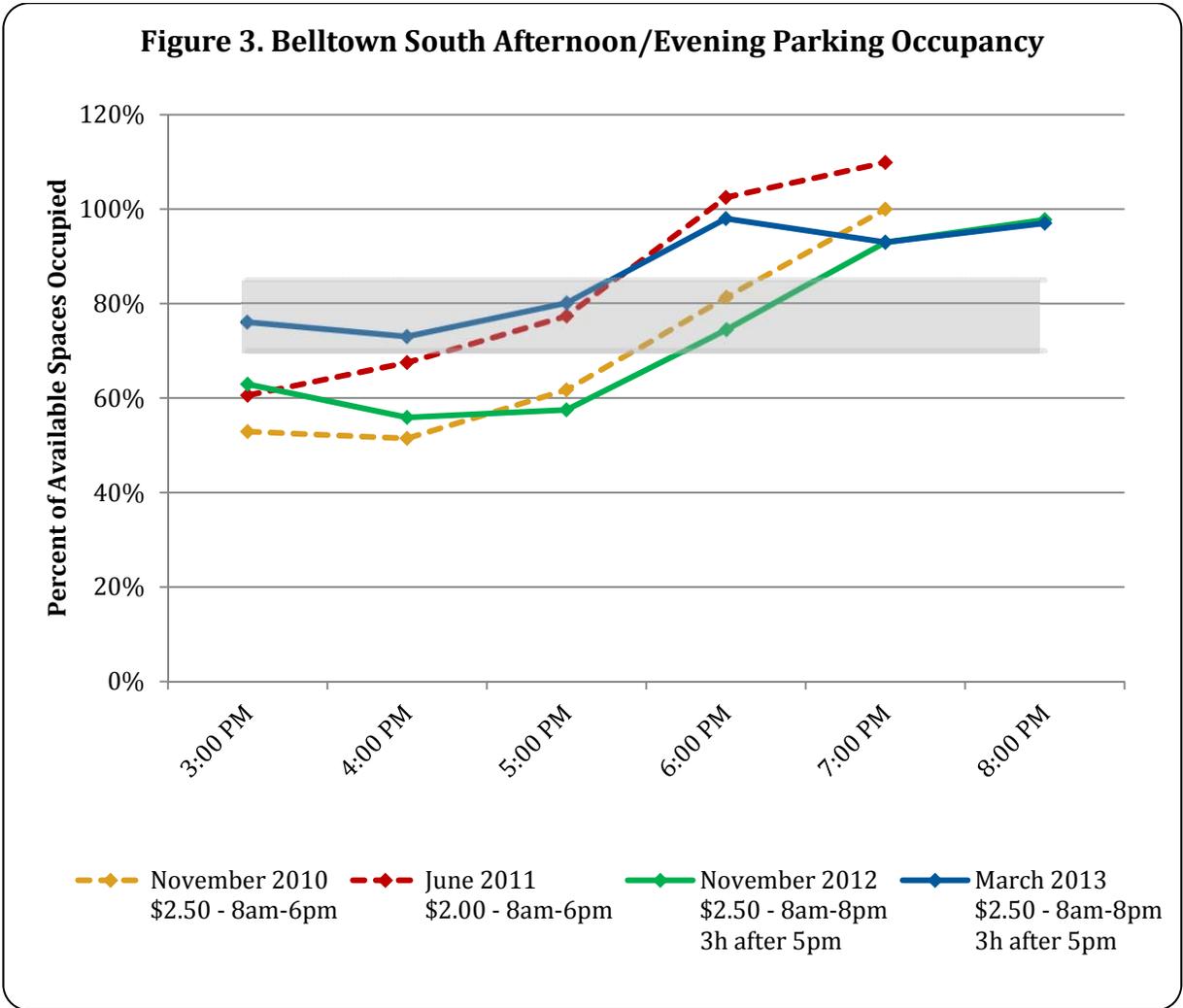
Belltown is divided into two subareas, north and south of Bell Street. SDOT completed evening paid parking implementation in August 2011. Based on survey timing, this provides two years of data before and after the addition of evening paid parking.

**Figure 2. Belltown North Afternoon/Evening Parking Occupancy**



# SDOT EVENING PAID PARKING REPORT

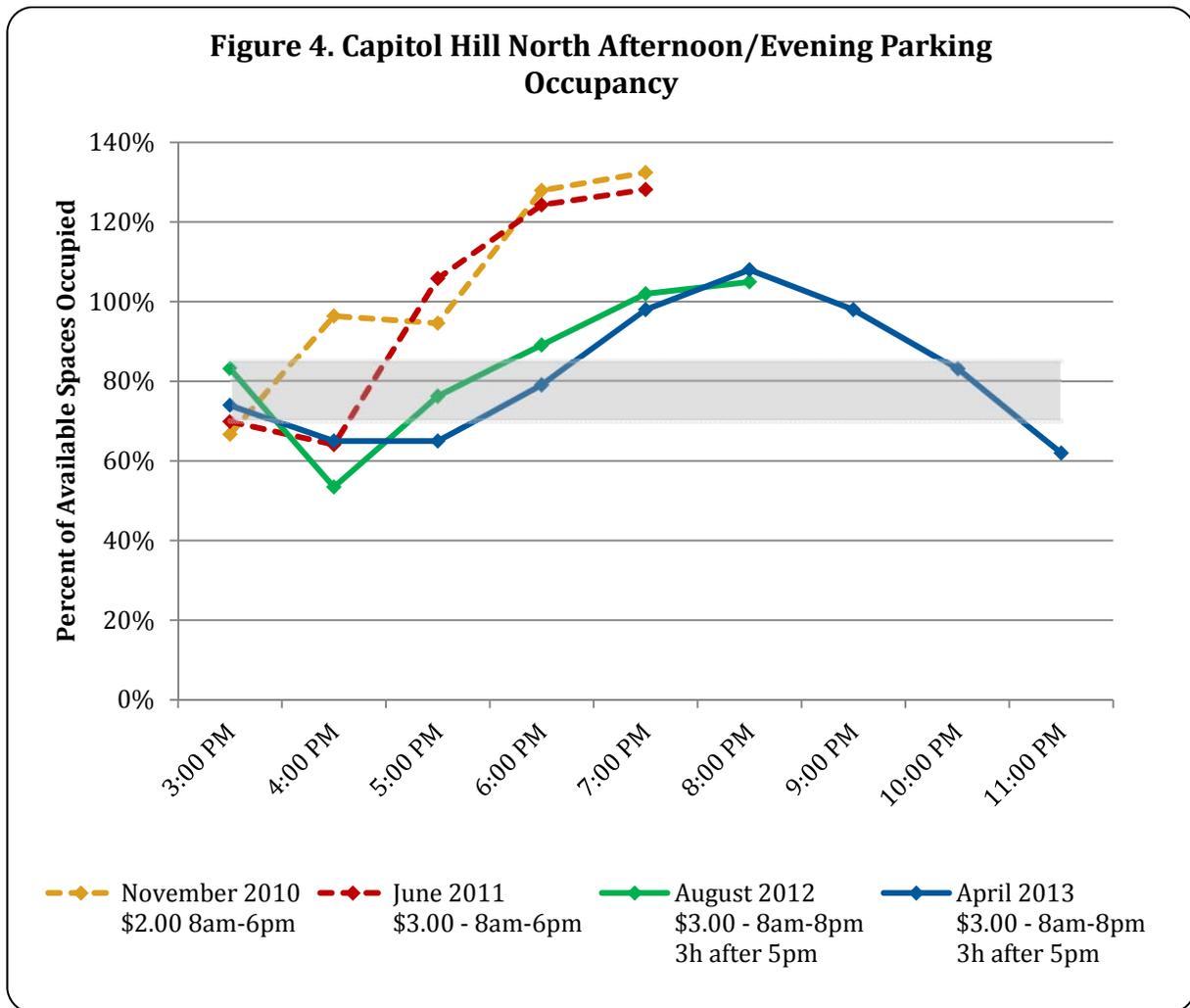
**Figure 3. Belltown South Afternoon/Evening Parking Occupancy**



# SDOT EVENING PAID PARKING REPORT

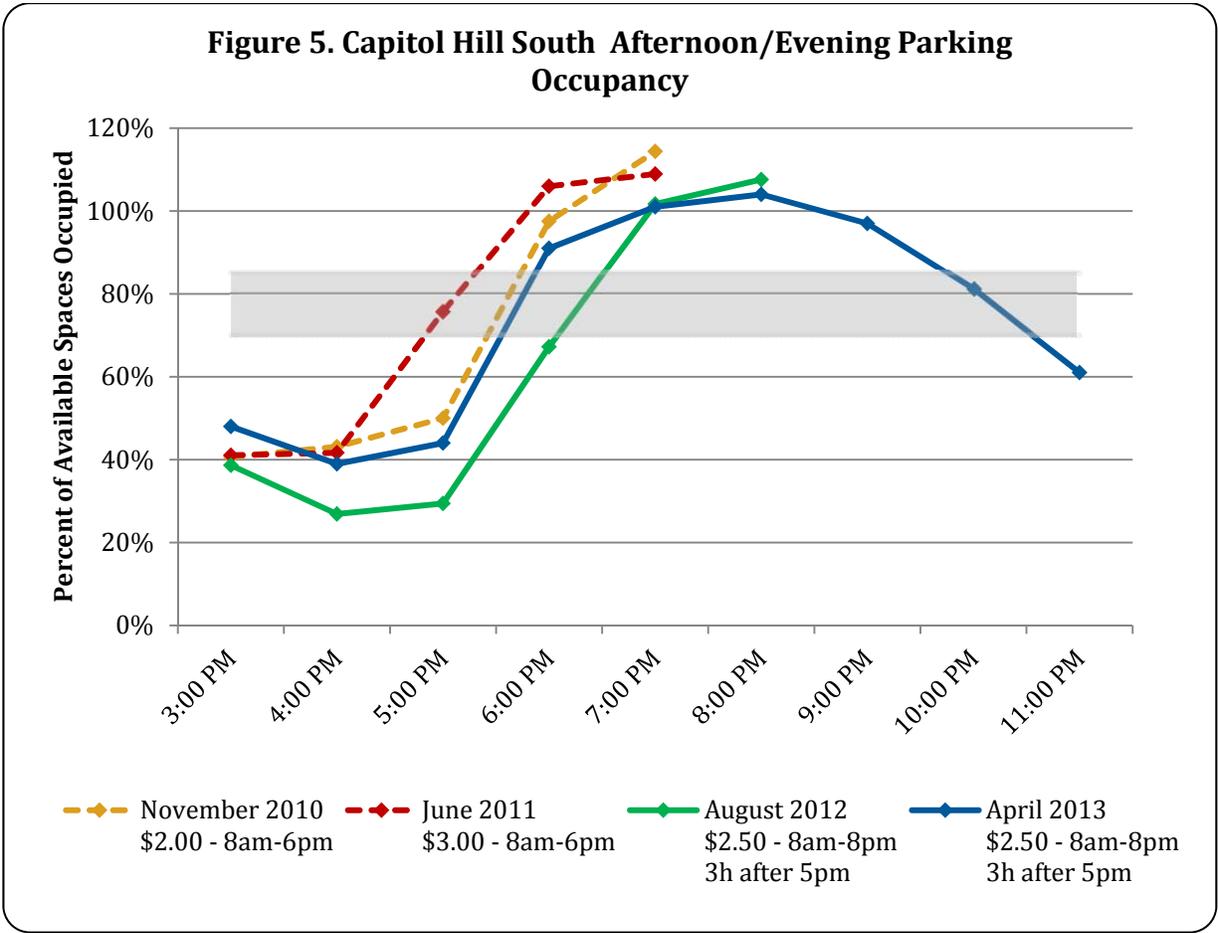
## Capitol Hill

Capitol Hill is divided into north and south subareas with E John Street serving as the boundary. The 2013 data collection included observations through 11 PM. SDOT implemented evening paid parking in September 2011. Based on survey timing, there are two years of data before and after the addition of evening paid parking.



# SDOT EVENING PAID PARKING REPORT

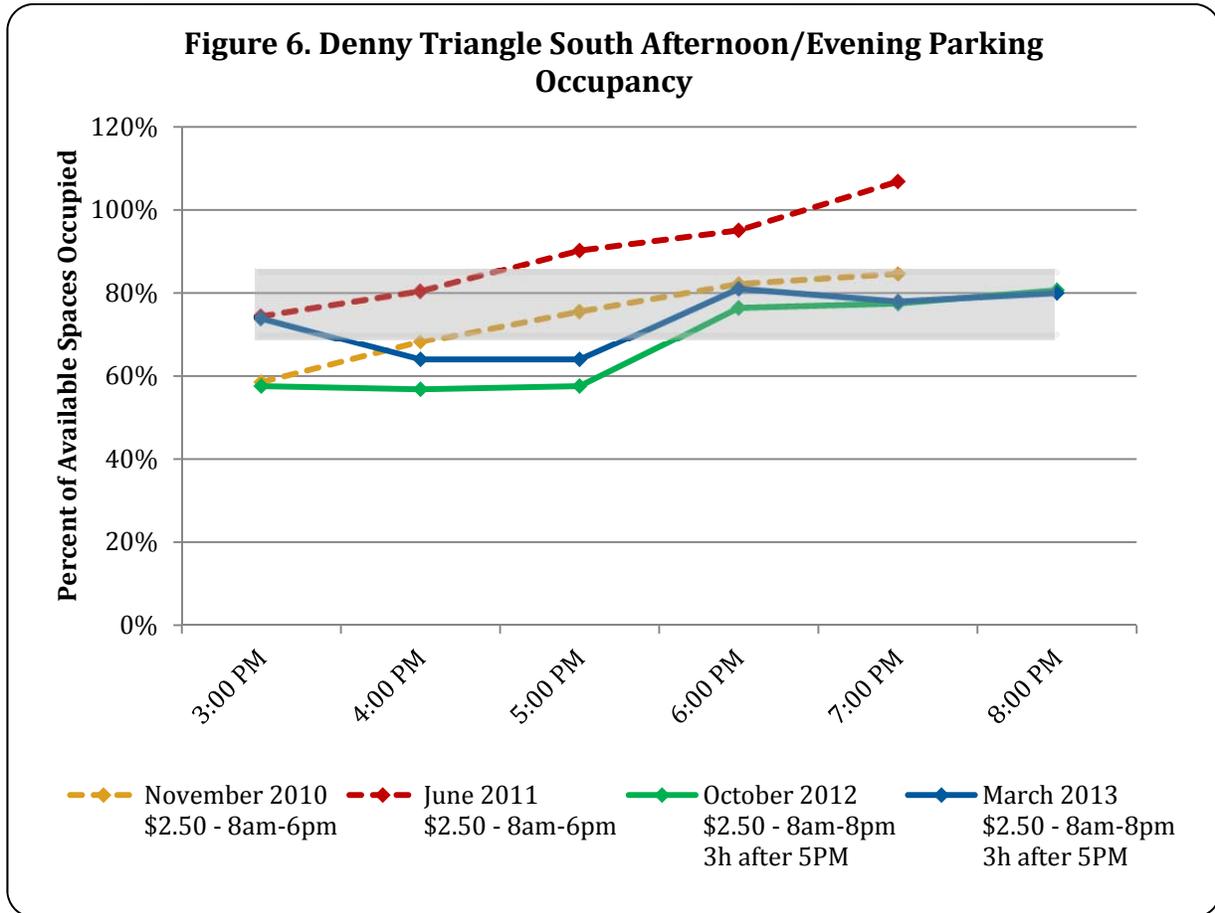
**Figure 5. Capitol Hill South Afternoon/Evening Parking Occupancy**



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## Denny Triangle South

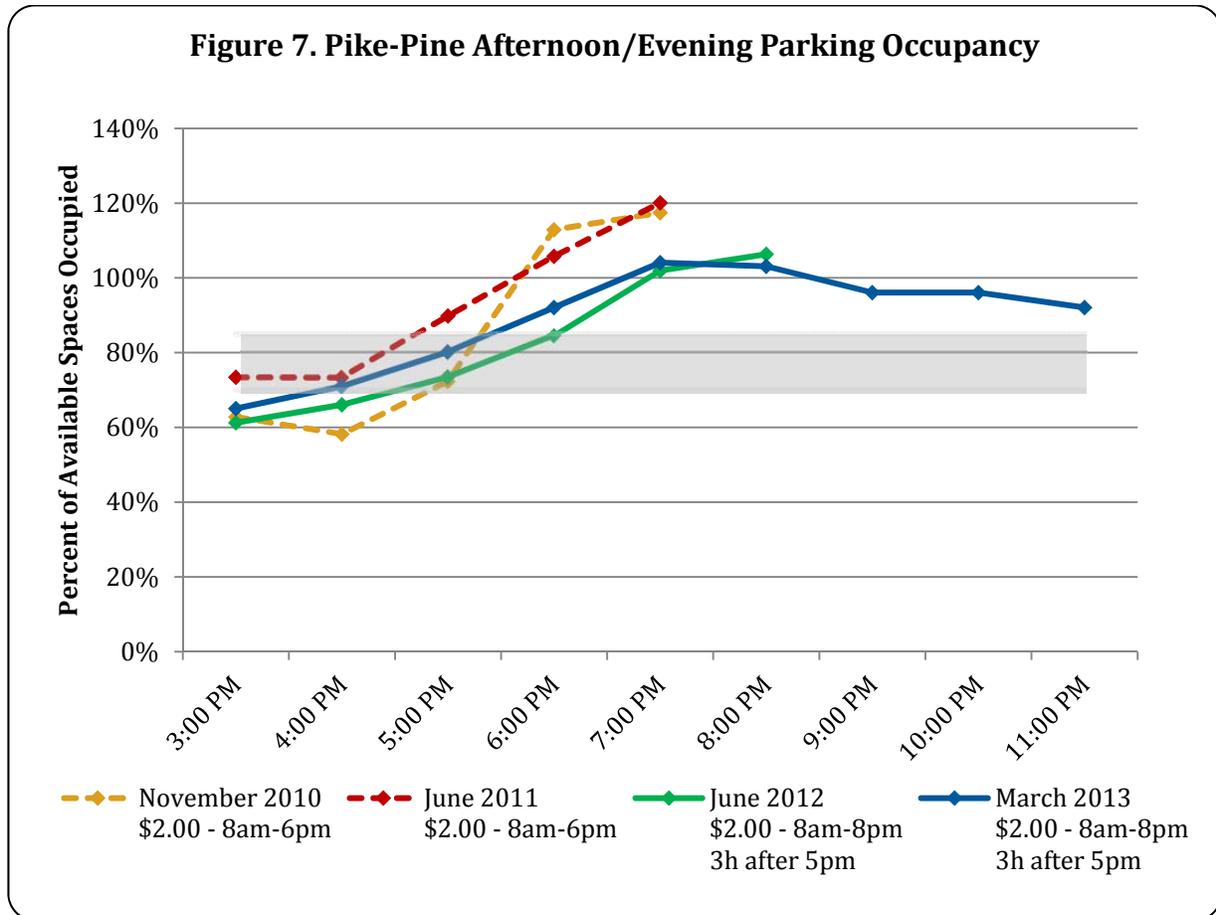
We implemented evening paid parking in May 2012 in Denny Triangle South. Based on survey timing, this provides two years of data before and after the addition of evening paid parking.



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## Pike-Pine

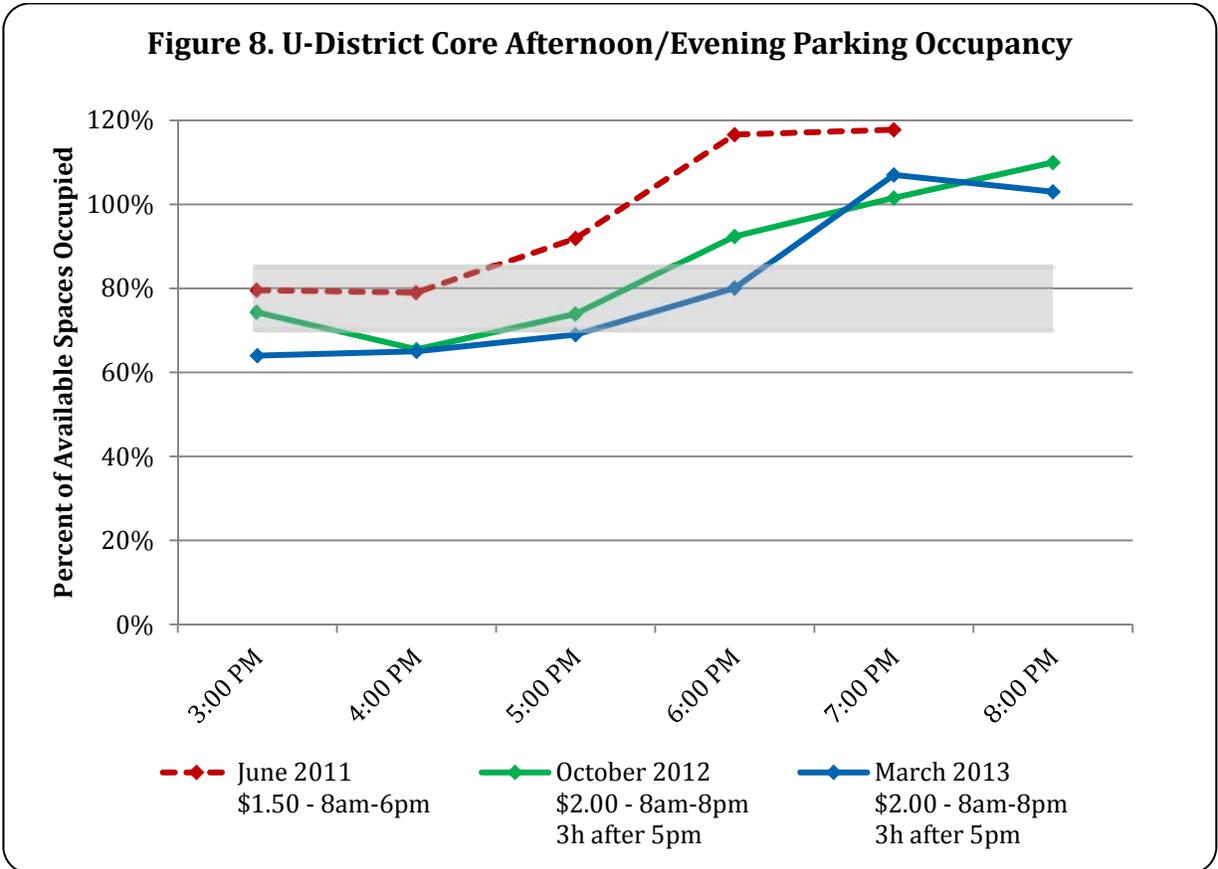
We implemented evening paid parking in September 2011 in Pike-Pine. Based on survey timing, this provides two years of data before and after the addition of evening paid parking. The 2013 data collection included observations through 11 PM.



# SDOT EVENING PAID PARKING REPORT

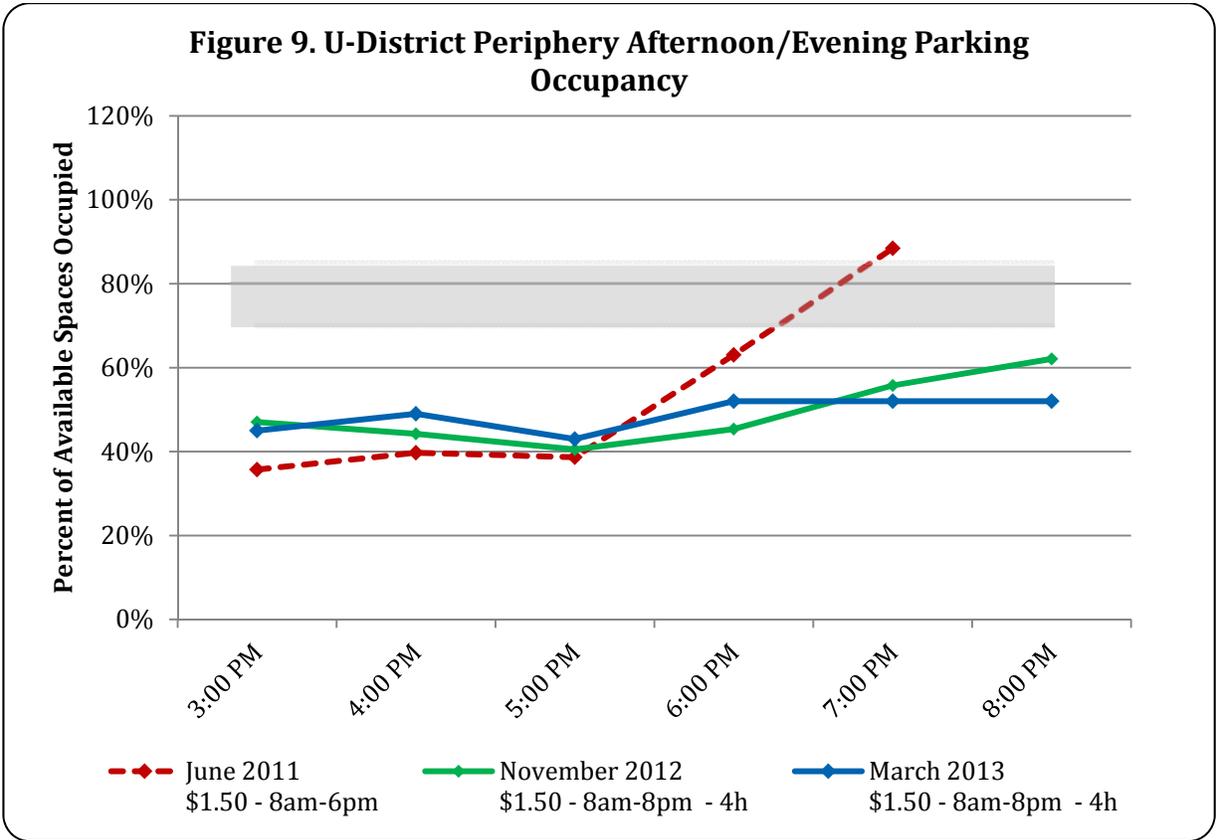
## University District

University District (U-District) is divided into a core and periphery area. SDOT implemented evening paid in October 2011. Based on survey timing, this provides one year of data before and two years after the addition of evening paid parking.



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**Figure 9. U-District Periphery Afternoon/Evening Parking Occupancy**

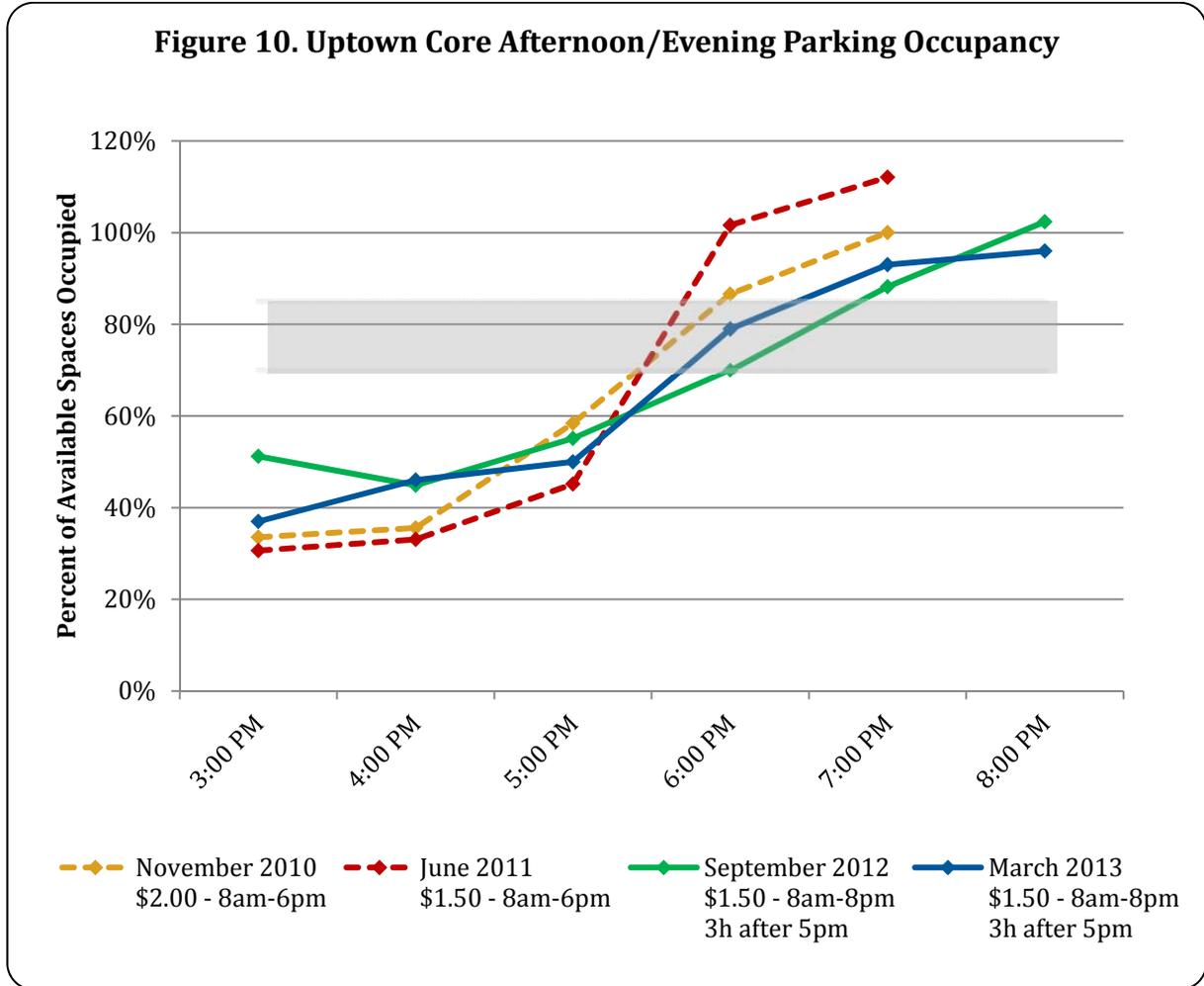


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## Uptown

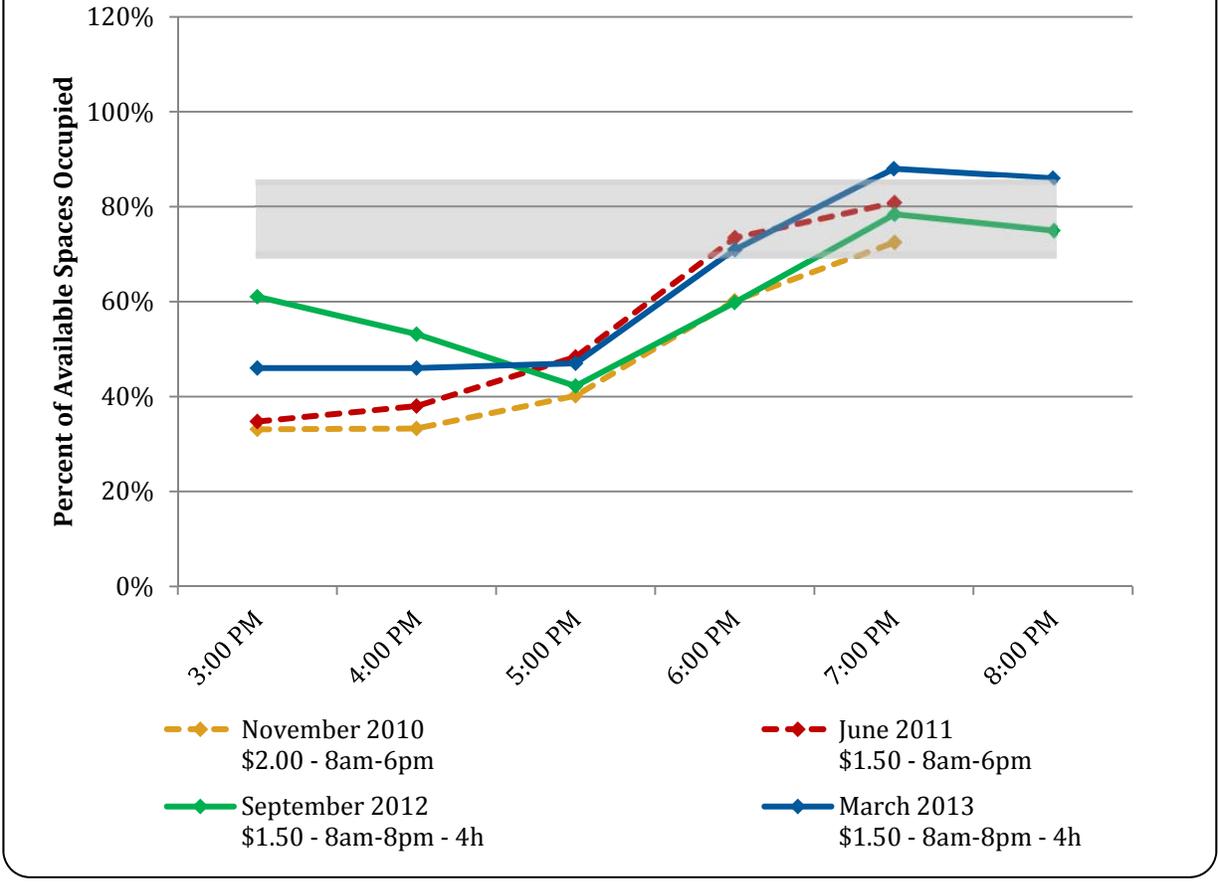
Uptown is divided into a core and periphery area. We implemented evening paid parking in October 2011. Based on survey timing, this provides two years of data before and after the addition of evening paid parking. The Uptown Periphery was the only neighborhood to show a slight increase in parking occupancy after the addition of evening paid parking.

**Figure 10. Uptown Core Afternoon/Evening Parking Occupancy**



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**Figure 11. Uptown Periphery Afternoon/Evening Parking Occupancy**



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## 2013 Evening Parking Data

The previous section used data from 2010 through 2013 to compare occupancy before and after the implementation of evening paid parking. This section provides more details on evening parking occupancy rates from the 2013 data survey, which included extended evening data collection in certain neighborhoods.<sup>5</sup>

### 2013 RESULTS

In 2013, SDOT collected data until 8 PM in all neighborhoods, and several neighborhoods were counted until 11 PM.<sup>6</sup> **Table 2** shows the distribution of evening peak parking occupancy by neighborhood or subarea. Bold indicates payment is required until 8 PM; meter hours end at 6 PM in all other neighborhoods or subareas.

<b>Table 2. Peak Evening Parking Time Period by Neighborhood, 2013 Survey*</b>		
6:00 PM Peak	7:00 PM Peak	8:00 PM Peak
<b>Belltown South</b>	12 <sup>th</sup> Avenue	<b>Belltown North**</b>
<b>Commercial Core Financial</b>	Ballard Core	<b>Capitol Hill North</b>
<b>Commercial Core Waterfront</b>	Ballard Periphery	<b>Capitol Hill South</b>
Denny Triangle North	Cherry Hill	<b>Chinatown-ID Core**</b>
<b>Denny Triangle South</b>	First Hill	Chinatown-ID Periphery**
Green Lake	Fremont	<b>Commercial Core Retail**</b>
<b>U-District Periphery</b>	<b>Pike-Pine</b>	<b>Uptown Core**</b>
	Pioneer Square Core	
	Pioneer Square Periphery	
	Roosevelt	
	South Lake Union 2-Hour	
	South Lake Union 10-Hour	
	<b>U-District Core</b>	
	<b>Uptown Periphery</b>	
* <b>Bold indicates payment is required until 8:00 PM.</b>		
** <b>Indicates last observation. Actual peak may have occurred later.</b>		

<sup>5</sup> For the full report, including maps of the paid parking areas, please refer to the citywide 2013 Paid Parking Summary Report available at [http://www.seattle.gov/transportation/parking/docs/2013 Paid Parking Report final.pdf](http://www.seattle.gov/transportation/parking/docs/2013%20Paid%20Parking%20Report%20final.pdf).

<sup>6</sup> These times indicate when neighborhood or subarea counts began. The count method is manual, so actual observations occur during some point of the stated hour. For example 11 PM counts on a given block may have been collected at 11:30 PM.

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The most frequent peak hour is 7 PM, but there are multiple neighborhoods that showed an evening peak during the last survey at 8 PM. It is possible that the peak occurred after 8 PM in these neighborhoods.

**Table 3** compares the 12 PM and 7 PM occupancy rates. In most neighborhoods, 12 PM is the highest midday parking occupancy. It is provided to compare how occupancy varies from midday to evening. As it indicates, most neighborhoods have higher parking occupancy during the evening than during the daytime. Some neighborhoods, like First Hill, have high occupancy rates both during the day and the evening.

The 2012 and 2013 evening occupancy rates show generally consistency year-over-year. Evening peak occupancy values between 6 PM and 8 PM in 2013 were within 15 percent of those in 2012 with three exceptions:

- **Commercial Core Waterfront**, where peak evening occupancy increased from 42 percent in 2012 to 87 percent in 2013
- **Pioneer Square Periphery**, where peak evening occupancy increased from 50 percent in 2012 to 80 percent in 2013
- **Commercial Core Financial**, where peak evening occupancy increased from 54 percent in 2012 to 78 percent in 2013

# SDOT EVENING PAID PARKING REPORT

**Table 3. 12 PM and 7 PM Occupancy, 2013 Survey\***

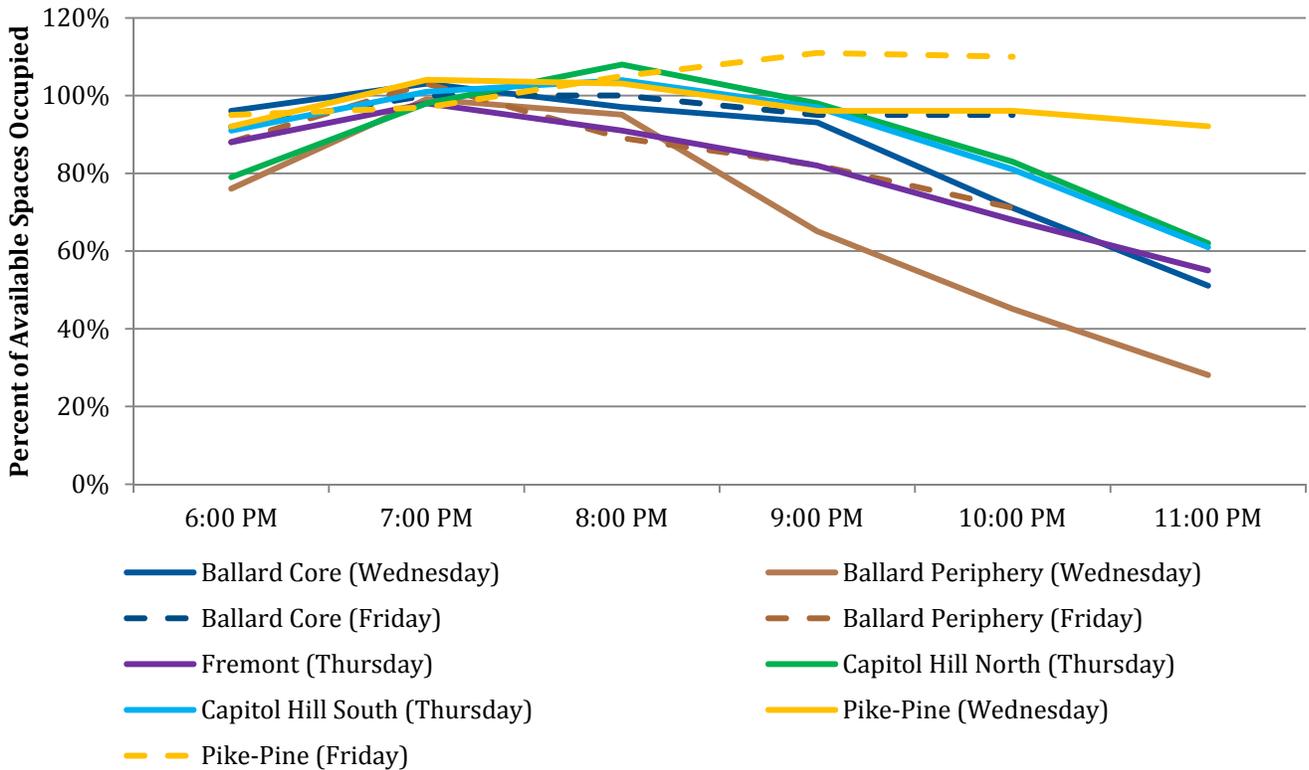
Neighborhood	12 PM Occupancy **	7PM Occupancy	Difference (7 PM - 12 PM)
12th Avenue	60%	108%	48%
Ballard Core	75%	103%	28%
Ballard Periphery	47%	99%	52%
<b>Belltown North</b>	<b>49%</b>	<b>53%</b>	<b>4%</b>
<b>Belltown South</b>	<b>82%</b>	<b>93%</b>	<b>11%</b>
<b>Capitol Hill North</b>	<b>84%</b>	<b>98%</b>	<b>14%</b>
<b>Capitol Hill South</b>	<b>58%</b>	<b>101%</b>	<b>43%</b>
Cherry Hill	71%	68%	-3%
<b>Chinatown/ID Core</b>	<b>87%</b>	<b>72%</b>	<b>-15%</b>
Chinatown/ID Periphery	70%	52%	-18%
<b>Commercial Core Financial</b>	<b>91%</b>	<b>69%</b>	<b>-22%</b>
<b>Commercial Core Retail</b>	<b>83%</b>	<b>73%</b>	<b>-10%</b>
<b>Commercial Core Waterfront</b>	<b>72%</b>	<b>80%</b>	<b>8%</b>
Denny Triangle North	59%	66%	7%
<b>Denny Triangle South</b>	<b>95%</b>	<b>78%</b>	<b>-17%</b>
First Hill	86%	91%	5%
Fremont	84%	98%	14%
Green Lake	63%	110%	47%
<b>Pike-Pine</b>	<b>71%</b>	<b>104%</b>	<b>33%</b>
Pioneer Square Core	97%	78%	-19%
Pioneer Square Periphery	91%	80%	-11%
Roosevelt	57%	88%	31%
South Lake Union 10-Hour	90%	55%	-35%
South Lake Union 2-Hour	83%	72%	-11%
<b>U-District Core</b>	<b>74%</b>	<b>107%</b>	<b>33%</b>
<b>U-District Periphery</b>	<b>59%</b>	<b>52%</b>	<b>-7%</b>
<b>Uptown Core</b>	<b>52%</b>	<b>93%</b>	<b>41%</b>
<b>Uptown Periphery</b>	<b>55%</b>	<b>88%</b>	<b>33%</b>
Uptown Triangle	56%	62%	6%
*Bold indicates evening paid parking area.			
** 12 PM was selected for comparison purposes only.			

# SDOT EVENING PAID PARKING REPORT

## EXTENDED EVENING COLLECTION

As part of the 2013 survey, we collected data in six areas after 8 PM. In these areas, the last data collection occurred between 11 PM and 12 AM. Dashed lines indicate Friday observations, with solid lines representing Wednesday or Thursday data.

**Figure 12. Evening Occupancy, Extended Hours Collection, Spring 2013**



The parking occupancy shows that, with the exception of the Ballard Core on Friday and Pike-Pine, evening parking demand peaks around 7 PM – 8 PM. Occupancy generally shows a large drop after around 9 PM.