

TECHNICAL MEMORANDUM

Project: Pioneer Square Sunday Time Limits
Subject: Post-Implementation Study
Date: August 17, 2015
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In September 2014, the Seattle Department of Transportation (SDOT) implemented Sunday time limits on 27 block faces in the core area of Pioneer Square. While parking is still free on Sundays, it is now limited to a 2-hour duration. The change was intended to increase parking turnover in the neighborhood, which would benefit businesses that rely on short-term parking for customers.

In May 2015, a parking study was performed to determine the effect of the new time limits. It surveyed parking occupancy and duration in Pioneer Square on block faces with and without the Sunday time limits. The study also addressed if parking conditions change with or without a Mariners game.

The findings showed that the parking spaces with Sunday time limits encourage parking turnover and allow more vehicles to park each day. The results show that each time-limited parking space was used by 0.7 to 1.2 more vehicles per day. The 176 time-limited spaces in the Pioneer Square neighborhood accommodated 122 more vehicles on a day without a stadium event than an equivalent number of unrestricted spaces. Those same spaces accommodated 218 more vehicles on a Mariner game day than the unrestricted spaces. These represent 22% to 45% more vehicles in the time limited spaces. In addition, the parking spaces with Sunday time limits operate within the occupancy targets desired by the City; unrestricted spaces have occupancies that exceed the desired target. This target is from 70% and 85% and represents one to two open spaces per block.

1. Parking Survey

1.1. Study Area

Figure 1 shows the study area for the Pioneer Square Parking Study. The boundaries are Cherry Street to the north, S King Street to the south, Alaskan Way to the west, and 3rd Avenue to the east. There are 27 block faces (a block face consists of one side of a street between two cross-streets) with 2-hour Sunday time limits. The streets with Sunday time limits are primarily located between Yesler Way and S Jackson Street. There are also time limits along Western Avenue just north of Yesler Way and along 2nd Avenue Extension S just south of S Main Street. There were 24 block faces with unrestricted spaces identified for the study. These streets are primarily located along and north of Yesler Way and along and south of S Jackson Street.



Legend

- New PSQ Sunday Time Limits
- No Time Restrictions
- xxxxx No Parking

**PIONEER SQUARE
SUNDAY TIME LIMITS
POST-IMPLEMENTATION STUDY**

Figure 1
Study Area for Parking Survey



1.2. Methodology

Parking data were collected on two Sundays—May 3, and May 17, 2015—from 8:00 A.M. to 8:00 P.M. in one-hour intervals (last count commenced at 7:00 P.M.). On May 3, there were no events at Safeco or Century Link Fields, and on May 17, the Mariners held a home game against the Boston Red Sox that started at 1:10 P.M. License plate information for vehicles parked in each on-street space was collected to determine both the number of vehicles parked (occupancy) as well as the length of stay (duration). Vehicles displaying handicapped placards or license plates were identified, since they are not subject to the time limit restrictions.

Parking occupancy and duration report below are based on the parking supply that SDOT has determined for each blockface. The supply assumes that there are 176 time-restricted and 176 unrestricted on-street parking spaces in the study area. It is recognized that with the current pay station layout and the fact that spaces are not marked, that the number of vehicles each block face can accommodate may change depending on vehicle size and manner in which motorists park.

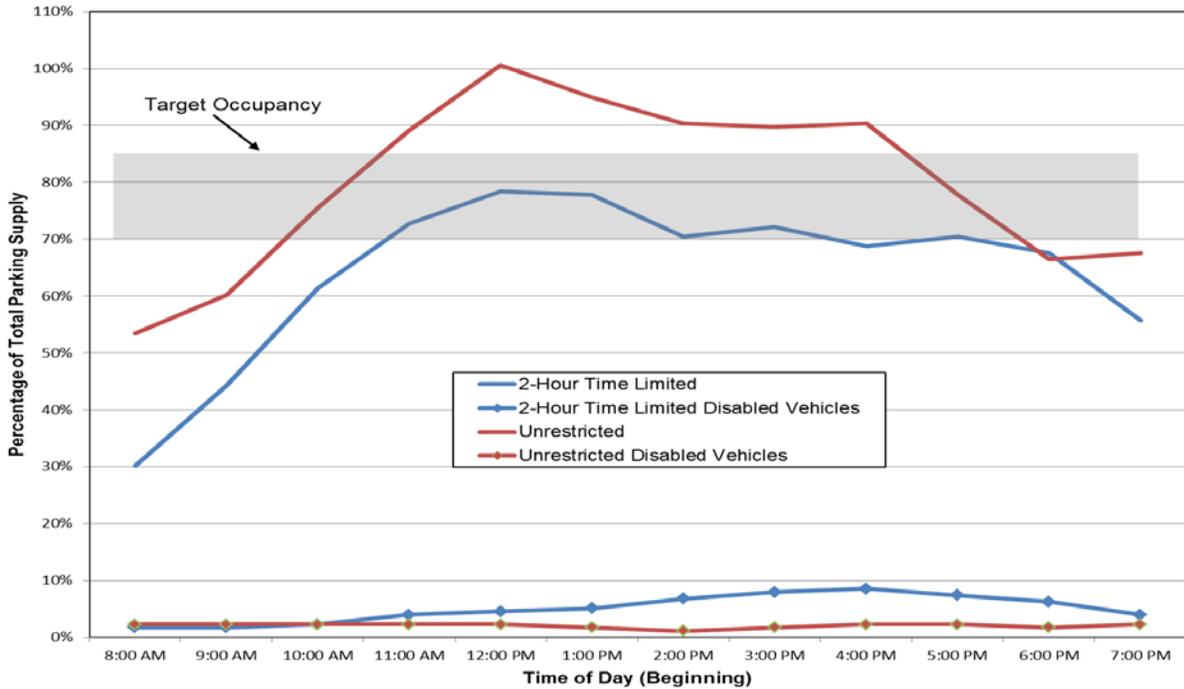
2. Parking Survey Results

2.1. Time-Limited versus Non-Restricted Spaces on Non-Game Day

Figure 2 shows the comparison of the occupancy for the time-limited and unrestricted parking spaces on May 3, 2015. This Sunday represented a typical Sunday with no major sporting events. The figure also indicates the target occupancy for parking spaces in the City of Seattle as defined by SDOT. This target is from 70% and 85% and represents one to two open spaces per block. As shown, the occupancy for the unrestricted spaces exceeded the target range between 11:00 A.M. and 5:00 P.M. The occupancy for the time-limited spaces fell within the targeted occupancy from 11:00 A.M. and 5:00 P.M. (with a small dip below the target range at 4:00 P.M.).

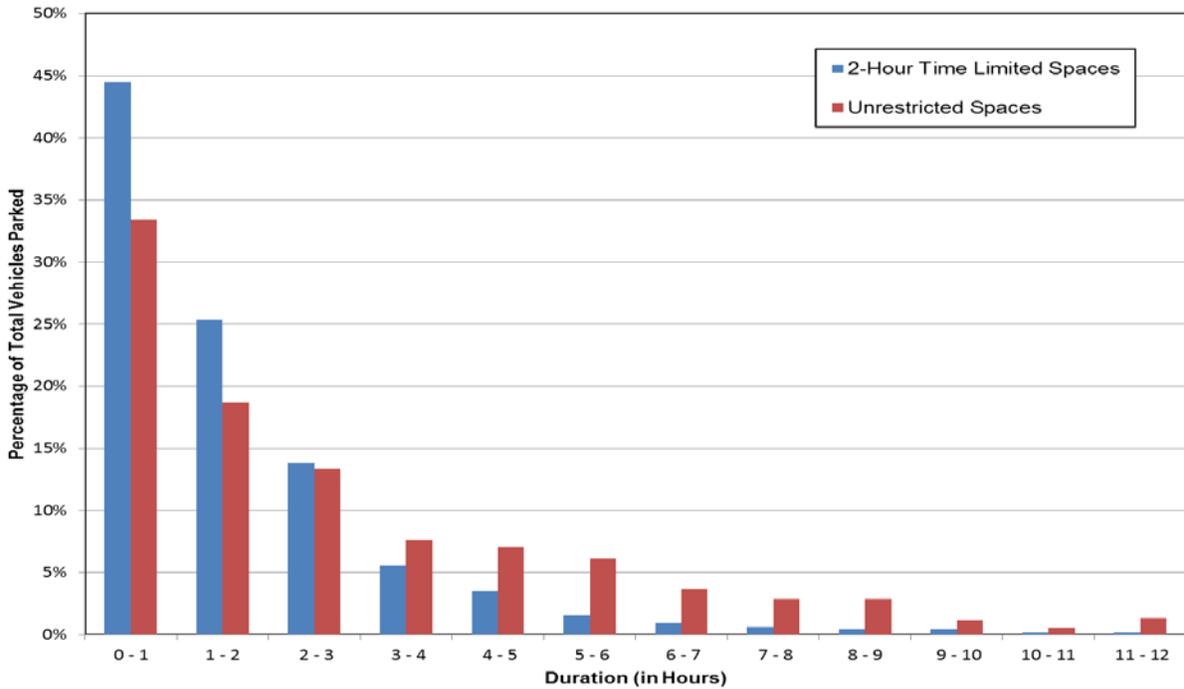
Figure 3 shows the comparison of duration for the time-limited and unrestricted parking spaces on May 3, 2015. In the time-limited spaces 70% of the vehicles were parked for two hours or less. In the unrestricted spaces, 52% of the vehicles were parked for two hours or less. It is noted that vehicles were surveyed once per hour, which likely undercounts short parking sessions that are less than one hour in length. Vehicles displaying disabled-person license or placards were not included in the duration estimates since they are not subject to the time limits. On average, the vehicles with disabled permits parked for about 5.5 hours on both survey days.

Figure 2. Comparison of Vehicle Occupancy Between
2-Hour Time-Limited Spaces and Unrestricted Spaces: May 3, 2015



Source: Heffron Transportation, Inc. May 2015. Does not include vehicles with disabled-person permits.

Figure 3. Comparison of Vehicle Duration Between
2-Hour Time-Limited Spaces and Unrestricted Spaces: May 3, 2015



Source: Heffron Transportation, Inc. May 2015. Does not include vehicles with disabled-person permits.

2.2. Impact of Mariners Home Game

Table 1 compares the number of vehicles parked in time-limited spaces versus the number of vehicles parked in unrestricted spaces on both May 3, and May 17, 2015. As shown, the time-limited spaces were used by 122 more vehicles (including vehicles with disabled placards) than the unrestricted spaces on the non-event day (May 3, 2015). On the day of the Mariners home game (May 17, 2015), an additional 218 vehicles parked in the time-limited spaces compared to the unrestricted spaces. This shows that the time-limited spaces do increase parking turnover.

Table 1. Number of Vehicles Parked in Time-Limited versus Unrestricted Spaces – May 2015

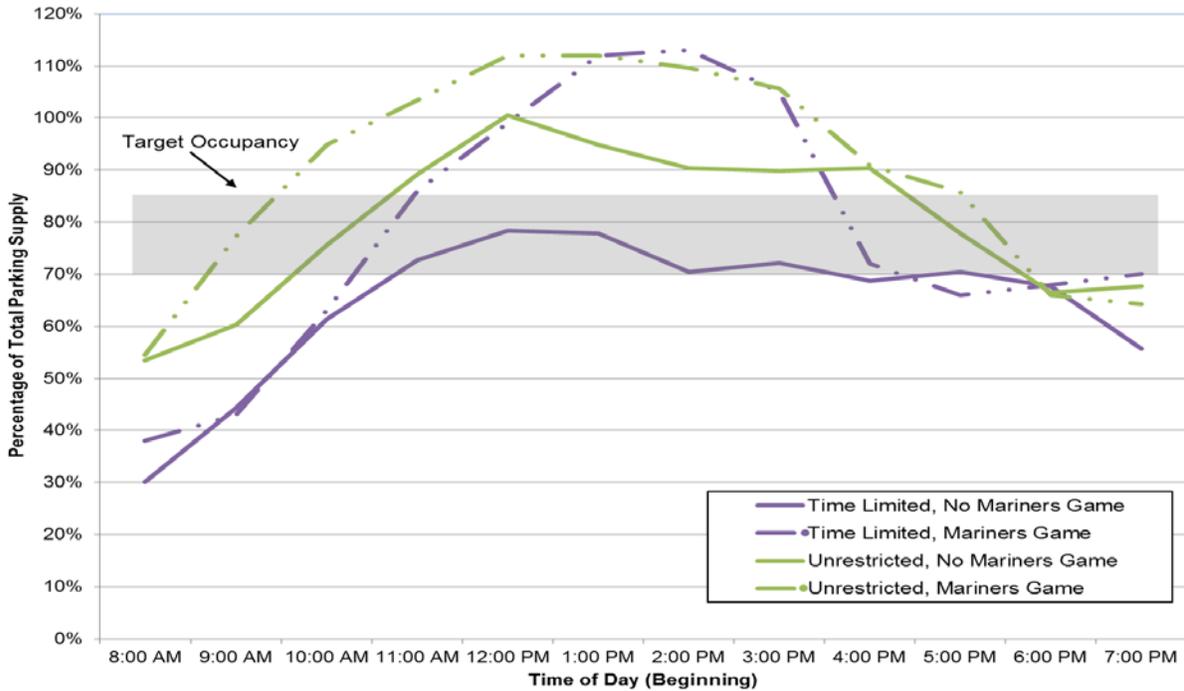
Parking Space Type	Number of Spaces	Regular Vehicles	Vehicles with Disabled Permit	Total Vehicles	Vehicles per Space
Sunday, May 3, 2015 – No Events					
Time-limited	176	627	19	646	3.7
Unrestricted	176	517	7	524	3.0
Difference	0	+110	+12	+122	+0.7
Sunday, May 17, 2015 – Mariners Home Game					
Time-limited	176	676	11	687	3.9
Unrestricted	176	464	5	469	2.7
Difference	0	+212	+6	+218	+1.2

Source: Heffron Transportation, Inc., May 2015

Figures 4, 5 and 6 show the impact of an at home Mariners game on parking occupancy and duration, respectively, in the study area. For the time-limited parking spaces, the target occupancy was exceeded between 11:00 A.M. and 4:00 P.M. and the peak occupancy increased to 113% (compared to 78% without an event). For the unrestricted spaces, the target occupancy was exceeded between 10:00 A.M. and 6:00 P.M. and the peak occupancy increased to 112% compared to 101% on a non-event day. (In both Figures 4 and 5, the vehicles with disabled placards were excluded).

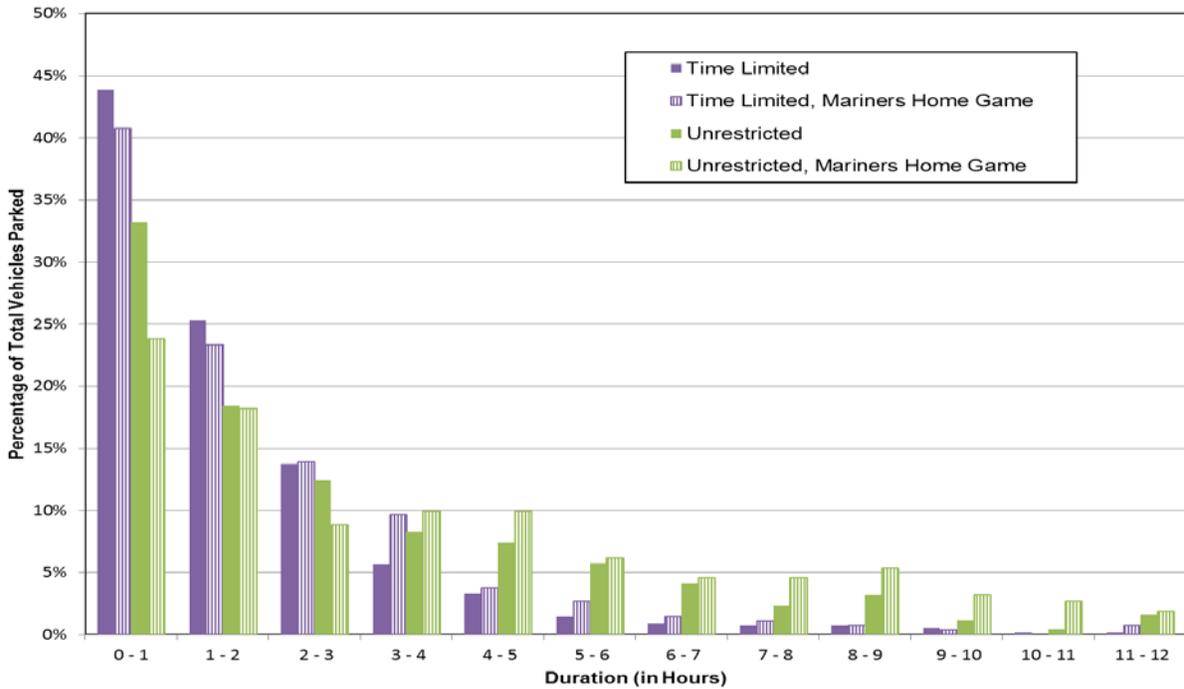
As shown in Figure 6, approximately 70% of all vehicles that parked in the time-limited spaces parked for two hours or less on the non-game day, this decreased to 64% on game day. Whereas the vehicles occupying the unrestricted parking spaces for two hours or less decreased from 52% on the non-game day to 43% on the game day. These comparisons show that the time-limited spaces have more turnover than unrestricted spaces, and that turnover decreases in all spaces on days with a Mariners game. The percentage of vehicles occupying the time-limited parking spaces between 6 and 12 hours increased from 3% on a non-game day to 4% on game day. The vehicles occupying the unrestricted parking spaces between 6 and 12 hours increased from 13% on a non-game day to 22% on game day.

Figure 4. Impact of Mariners Home Game on Vehicle Occupancy for 2-Hour Time-Limited Spaces and Unrestricted Spaces



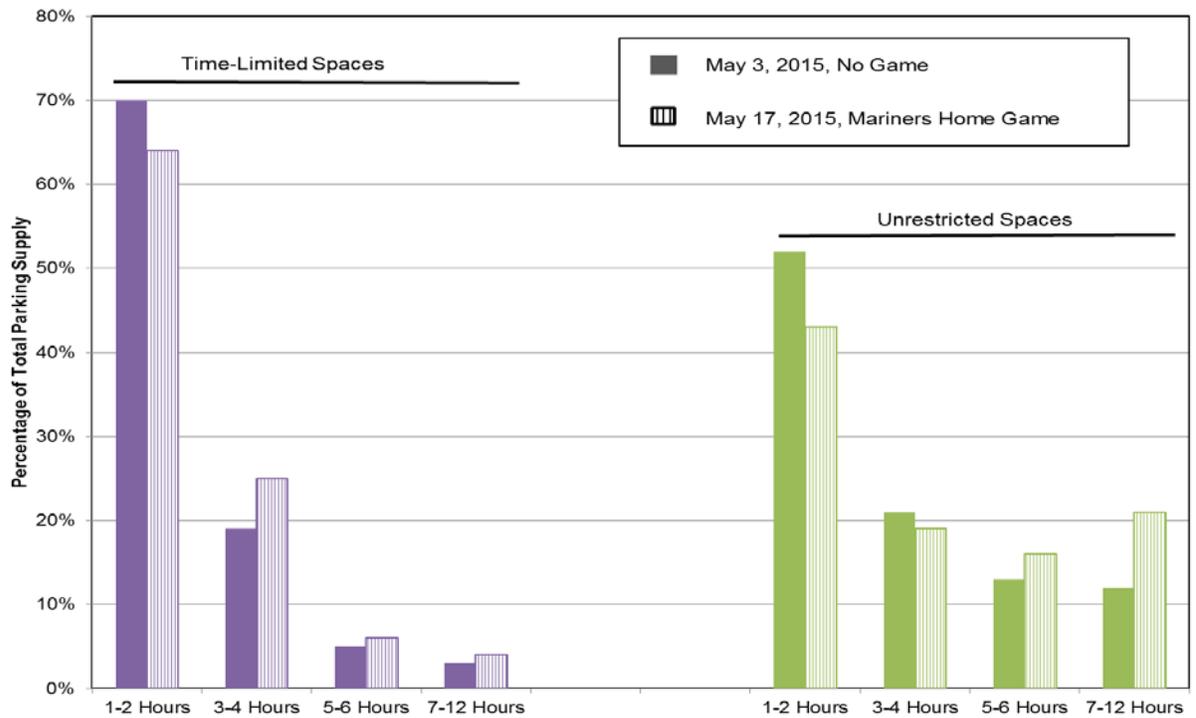
Source: Heffron Transportation, Inc. May 2015. Does not include vehicles with disabled-person permits.

Figure 5. Impact of Mariners Home Game on Vehicle Duration for 2-Hour Time-Limited Spaces and Unrestricted Spaces



Source: Heffron Transportation, Inc. May 2015. Does not include vehicles with disabled-person permits.

Figure 6. Parking Duration For Time Limited vs Unrestricted Spaces



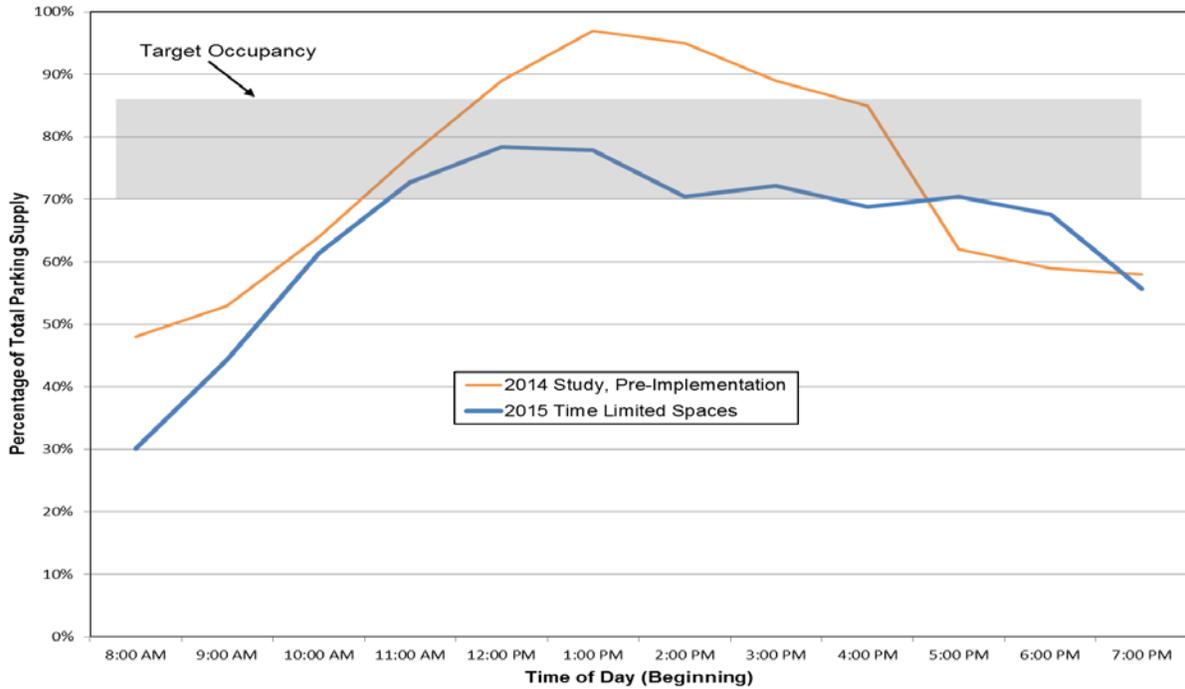
Source: Heffron Transportation, Inc., May 2015. Does not include vehicles with disabled-person permits.

2.3. Comparison to 2014 Study

In 2014, a parking study was conducted in the Pioneer Square area by The Transpo Group as part of SDOT’s annual citywide parking study prior to implementation of the Sunday Time Limits. The study was conducted on May 18 (a non-event day) and the methodology was similar to that used for this study. Figures 6 and 7 compare the 2014 study in the core area of Pioneer Square to the time limited spaces in the 2015 study. The prior study included a “core area” that is similar to the area where time-limited Sunday parking has been implemented. Although the blockfaces differ slightly, it provides a good basis for comparing the effects of the time limits. As shown in Figure 6, occupancy in 2014 exceeded the target occupancy between 12:00 and 3:00 P.M., and occupancy approached 100% in the mid-day. With the time limits, occupancy in the core area has decreased to less than 70%.

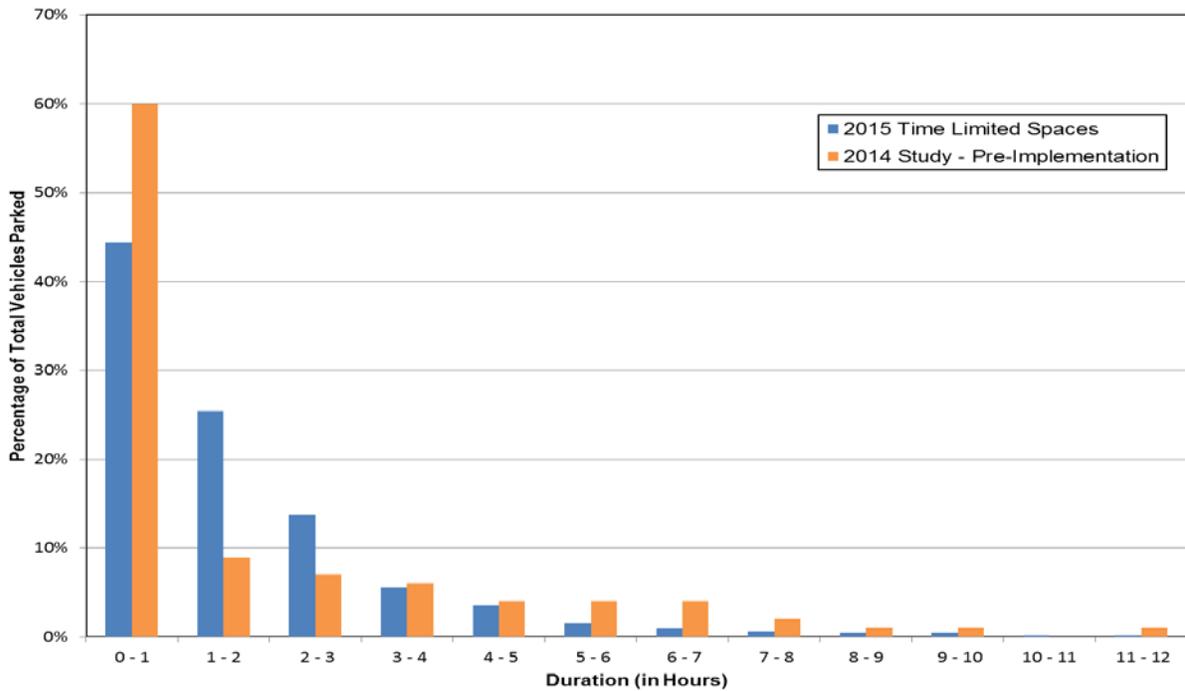
As shown in Figure 7, the percentage of vehicles parked two hours or less was almost equal with 69% in 2014 and 70% in 2015. The percentage of vehicles parked for four hours or more decreased from 17% in 2014 to 8% in 2015.

Figure 6. Comparison of Vehicle Occupancy Between 2014 and 2015 Parking Study



Source: Heffron Transportation, Inc. May 2015. Does not include vehicles with disable-person permits.

Figure 7. Comparison of Vehicle Duration Between 2014 and 2015 Parking Study



Source: Heffron Transportation, Inc. May 2015. Does not include vehicles with disable-person permits.

3. Findings

- **Parking spaces that have Sunday time limits allow more vehicles to park each day than unrestricted spaces.** On the non-game Sunday, 122 more vehicles parked in the time-limited spaces than in the same number of unrestricted spaces. This represented an additional 0.7 vehicles per space. On the Sunday with the Mariners game, an additional 218 vehicles parked in the time-limited spaces compared to the unrestricted spaces, an increase of about 1.2 vehicles per space.
- **Parking spaces with Sunday time limits operate within the occupancy targets desired by the City; unrestricted spaces have occupancies that exceed the desired target.** This target is from 70% and 85% and represents one to two open spaces per block. On the non-game Sunday, vehicles parked in the unrestricted spaces exceeded the target occupancy for six hours. The vehicles parked in the time-limited spaces were within the target occupancy for six hours. Based on the 2014 study before time limits, the vehicles parked in the Pioneer Square core area exceeded the target occupancy for four hours. On Sunday with the Mariners game, vehicles parked in the unrestricted spaces exceeded the target occupancy for eight hours. The vehicles parked in the time-limited spaces exceeded the target occupancy for five hours.
- **Parking spaces with Sunday time limits encourage short-term parking.** Approximately 70% of all vehicles that parked in the time-limited spaces parked for two hours or less on the non-game day, this decreased to 64% on game day. Whereas the vehicles occupying the unrestricted parking spaces for two hours less decreased from 52% on the non-game day to 43% on the game day. There was a slight increase in the percentage of vehicles parked in the time-limited spaces for 7 to 12 hours from 3% on a non-game Sunday to 4% on a Sunday with a Mariners game. This compares with a large increase in parking sessions that are 7 to 12 hours in length in unrestricted spaces on game days, which increased from 12% to 21%.

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