TECHNICAL MEMORANDUM

Project: 2021 Center City Off-Street Parking Study

Subject: Methodology and Findings

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This memorandum summarizes the methodology and findings of the 2021 Center City Off-Street Parking Study performed for the Seattle Department of Transportation (SDOT). This survey of off-street facilities is the fourth study commissioned by SDOT with the previous three studies conducted in 2014, 2016 and 2018. This study analyzes public off-street parking facilities, which are available to the public during the workday between 8:30 A.M. and 6:00 P.M. Facilities reserved entirely for monthly parking, residents/ guests, customers/employees, or other permit holders were not considered public. The information for the off-street parking facilities together with Seattle's Annual On-Street Parking Study provide a comprehensive account of public parking conditions and trends in the Center City.

1. Study Area

Figure 1 shows the study area for the 2021 Center City Off-Street Parking Study. The subareas, based on SDOT's on-street paid parking areas, have been used for each off-street parking survey since 2014. The study area was extended in 2021 to include the Little Saigon and Uptown neighborhoods. The Capitol Hill South/ Pike Pine subarea, studied in 2018, was not included in the 2021 study. The boundaries for the study area west of Interstate 5 are generally Roy Street to the north, S Royal Brougham Way to the south, and Elliott Bay to the west. East of Interstate 5, the study area is bound by South Main Street to the north, South Weller Street to the south, and Rainier Avenue South to the east. To provide a consistent comparison to prior surveys, the subareas continue to be grouped by the "Commercial Core," which includes the financial district, retail core area, and waterfront (this boundary is shown in Figure 1). All other subareas are "Outside the Commercial Core."

During the 2021 study, 237 public parking facilities were surveyed, and 24 facilities were unable to be surveyed due to a variety of access issues. It was observed that most access issues were likely a result of facilities that were temporarily shut down amid the COVID-19 pandemic. Data presented in the *2018 Downtown Off-Street Parking Study*[1] indicated that 20 of the 24 facilities had once been public. The 20 facilities that were previously public are reflected in the total parking supply, since it is expected that they would return to public use once demand increases. Overall, the 2021 study captured data from 92% of the 257 public parking facilities that collectively have nearly 60,000 public parking spaces.

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1 Heffron Transportation, 2018.

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Figure 1
Study Areas and Surveyed Facilities

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2. Survey Methodology

2.1. Parking Facilities Surveyed

Figure 1 shows the public facilities that were surveyed. The survey only included facilities that are available for public parking Monday through Friday between the hours of 8:30 A.M. and 6:00 P.M. Facilities reserved entirely for monthly parking, residents/guests, customers/employees, or other permit holders were not considered public.

Evening and weekend data collection was performed for a sample of key facilities that had been selected for prior-year studies to represent a mix of small and large facilities as well as surface parking lots and garages. The same locations were surveyed for 2021 to assess trends over time; these sample facilities are shown on **Figure 2**. It is noted that many facilities had reduced hours of operations during COVID, and some facilities surveyed in past studies were not open on nights or weekends. The number of facilities surveyed during each period are noted in the results tables.

2.2. Data Collection and Survey Periods

Parking occupancy counts were performed over an eight-week period between April 26, 2021 and June 18, 2021 during the following times:

- Weekday: Monday through Thursday, mornings between 8:45 A.M. and 12:00 P.M., and afternoons between 12:45 P.M. and 3:30 P.M.
- Friday Evenings: Friday between 6:00 P.M. and 8:00 P.M.
- Weekends: Saturday afternoons between 11:30 A.M. and 2:30 P.M.

In addition to the number of vehicles parked in each garage, the data surveyors completed a supply survey to confirm the number of parking spaces (parking supply), the hours of operation, parking rates, and parking space user restrictions (e.g., designated disabled parking space, reserved for carpool).

2.3. Changes from Prior Studies

The 2014 study focused on surveying all publicly available facilities in the Commercial Core and a sample of facilities outside the Commercial Core. For the 2016, 2018 and 2021 studies, weekday surveys were performed at all facilities in all areas, and evening and weekend surveys were performed at a sample of facilities in all areas. The 2018 survey increased the number of facilities surveyed in the South Lake Union neighborhood compared to the 2016 survey and added a sample of facilities in the Capitol Hill South/Pike Pine area. The 2021 survey expanded the study area to include Little Saigon and Uptown, but did not include the Capitol Hill/Pike Pine area sampled in 2018. A comparison of results for facilities surveyed in all four studies (2014, 2016, 2018 and 2021) is provided in Section 4.

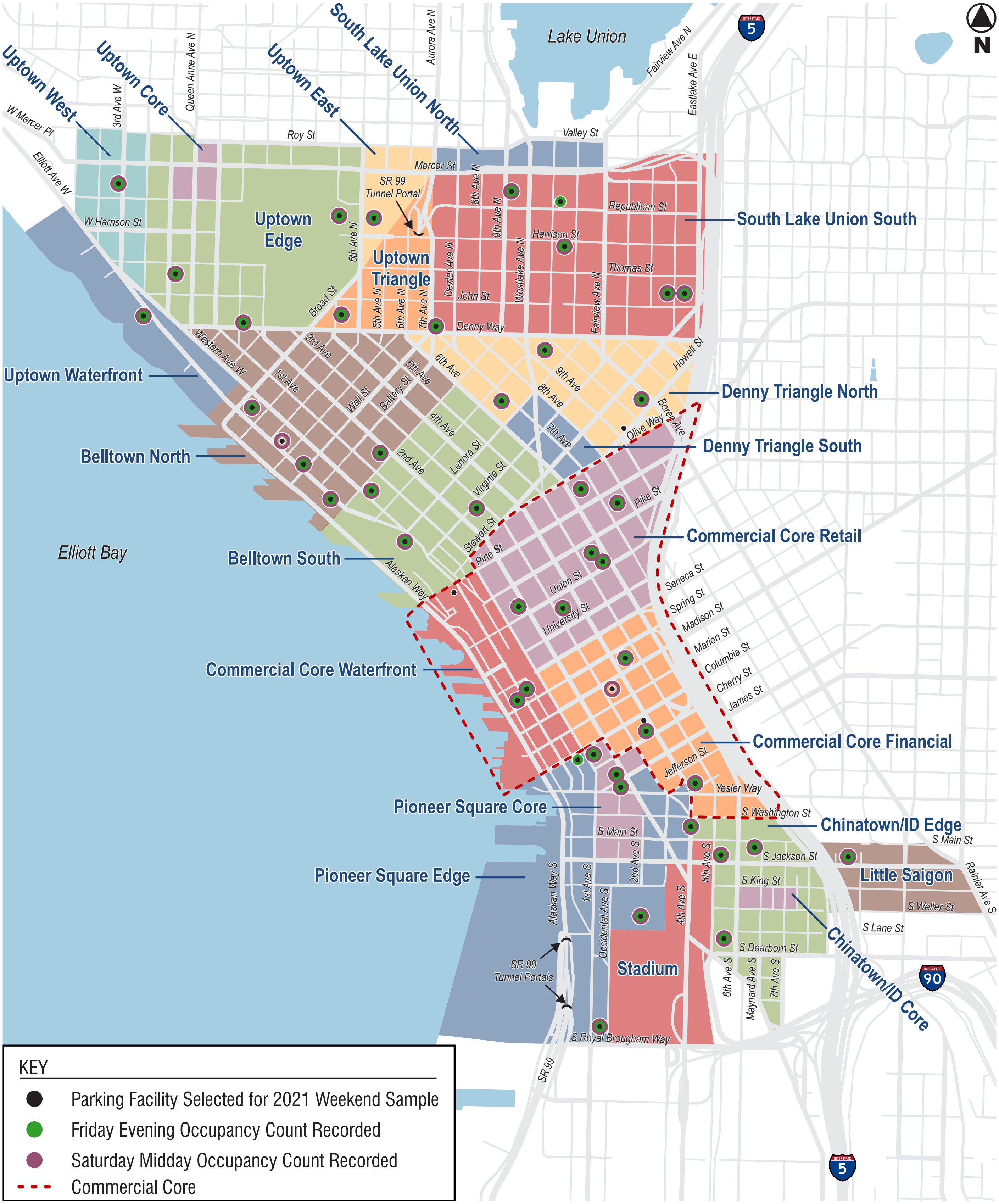

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Figure 2
Location of Off-Street Facilities Sampled on the Weekend

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It should be noted that the 2021 study reflects conditions during the COVID-19 pandemic. By the start of the data collection period in late April/early May, the vaccine had been widely distributed and was made available to all residents over the age of 16, and the state had shifted to Phase 3 of reopening—most restaurants allowed some indoor dining, all Washington school districts were required to offer all K-12 students a hybrid in-person/remote learning model, and masks were no longer required for vaccinated individuals in public spaces. Despite the relaxed restrictions, many individuals continued to work from home and major employers were still encouraging telecommuting. Tourist activities were also notably reduced, with no conventions, large concerts, and no cruise ship sailings at the Port of Seattle (cruise activity resumed in July 2021). As described later, parking occupancy throughout the study area was substantially lower compared to prior years. It does provide a baseline against which recovery from the pandemic can be measured.

2.4. New Tools and Database Improvements

The 2021 study incorporated several new tools for data analysis and collection which heightened data quality for not only this iteration of the study but for all data collected in the past iterations of the study. The new tools include, geospatial mapping, and the creation of geospatial survey application. In addition to these new tools a historical database was compiled, and a metadata for the historical database was developed to clearly describe the project's data definitions and database model.

Historical Database

A historical database was compiled to allow better comparison of trends across multiple study years. It is comprised of all facilities listed in the 2014, 2016, 2018 and 2021 datasets. In the process of migrating all the past datasets into one database, each facility was reviewed, and classified in a new field as either public, private, missed, no access, no longer exists, or construction. This new field was useful in determining if a facility met the criteria for being included in the analysis, that is, if it was a public parking facility.

Once the historical database was assembled it was analyzed geospatially to confirm that parking facility locations were accurate and consistent across each study year. The subarea assignments were also crosschecked and updated to align with the defined subareas. Several facilities were updated during this crosscheck resulting in slightly different subarea composition when compared to past analyses. Section 4 presents the trend analysis using the new historical database.

Digital Survey Application

A digital data-gathering solution was developed using geographic information systems (GIS)[2] software to conduct the supply and occupancy surveys. Surveyors used a mobile app to fill a smart questionnaire with structured data input, including numeric, pre-defined text input, open comment, pictures, and geo-location.

[2] Environmental Systems Research Institute (ESRI) Suite, including ArcGIS Online, Survey123 and Collector.

3. Survey Results

The parking survey data were compiled to show various metrics for each of the sixteen subareas. The following tables summarize the results:

Table 1. Off-Street Parking Supply by Center City Subarea – This table summarizes the number of facilities and number of parking spaces for each subarea. The "inventoried" category includes data from public parking facilities surveyed in 2021. The "total" category expands on the "inventory" category to include sampled data from the 2018 study for public facilities that were unable to be surveyed in 2021 (facility was closed or public use restricted with gates or security measures).

Table 2. Off-Street Parking Occupancy Survey Results: Weekday – This table summarizes parking occupancy for each subarea during the weekday periods. Parking occupancy is defined as the number of parked vehicles. Percent Occupancy is defined as occupancy divided by the total number of parking spaces.

Table 3. Off-Street Parking Occupancy Survey Results: Weekend – This table summarizes parking occupancy for the evening and weekend periods for the sample facilities identified on **Figure 2**. As previously noted, these sample facilities are the same as those surveyed for prior-year studies; however, many of these were operating with reduced hours due to COVID. The number of facilities that were open during each survey period is noted.

Table 4. Average Rates for Off-Street Parking – This table summarizes the average posted parking rates for each subarea for various lengths of stays. Posted rates do not apply to customers who may have a monthly parking pass. **Figure 3** shows the average 2-hour parking rates by subarea.

Table 5. Parking by Type of Space – This table summarizes the various types of spaces that were designated in the surveyed garages.

Table 6. Occupancy by Type of Space – This table summarizes parking occupancy by type of space.

Table 1. Off-Street Parking Supply by Center City Subarea

Commercial Core Areas	Number of Public Off-Street Parking Facilities [a]			Number of Parking Spaces [a]		
	Total [b]	Inventoried [c]	% Inventoried	Total [b]	Inventoried [c]	% Inventoried
Financial	26	22	85%	8,679	7,279	84%
Retail	34	31	91%	12,628	12,027	95%
Waterfront	8	8	100%	2028	2,028	100%
Total Commercial Core	*68*	*61*	*90%*	*23,335*	*21,334*	*91%*
Areas Outside Commercial Core						
Belltown North	21	19	90%	4,056	3,657	90%
Belltown South	27	26	96%	2,769	2,706	98%
Chinatown/ID Core	1	1	100%	21	21	100%
Chinatown/ID Edge	14	14	100%	1,027	1,027	100%
Denny Triangle North	25	25	100%	7,133	7,133	100%
Denny Triangle South	9	7	78%	2,482	1,945	78%
Little Saigon	1	1	100%	167	167	100%
Pioneer Square Core	6	4	67%	1,241	810	65%
Pioneer Square Edge	13	12	92%	2,680	2,592	97%
South Lake Union North	2	2	100%	493	493	100%
South Lake Union South	34	30	88%	7,661	6,420	84%
Stadium	4	4	100%	2,575	2,575	100%
Uptown Core	2	2	100%	21	21	100%
Uptown East	4	3	75%	1,185	1,165	98%
Uptown Edge	17	17	100%	1,592	1,592	100%
Uptown Triangle	5	5	100%	620	620	100%
Uptown Waterfront	1	1	100%	108	108	100%
Uptown West	3	3	100%	457	457	100%
Total for Areas Outside Commercial Core	*189*	*176*	*93%*	*36,288*	*33,509*	*92%*
Total All Areas	**257**	**237**	**92%**	**59,623**	**54,843**	**92%**

Source: Heffron Transportation, Inc., Surveys perform from April 26, 2021 to June 18, 2021.

a. 'Public Off-street parking facilities' includes facilities available for public parking during the workday between 8:30 A.M. and 6:00 P.M.

b. Reflects total number of spaces for all public parking facilities surveyed and sampled data from the 2018 Downtown Off-Street Parking Study (Heffron Transportation Inc., 2018) for the 20 public facilities that could not be surveyed due to access issues.

c. Reflects number of facilities where new occupancy counts were performed during the weekday survey periods. Access was denied for 20 facilities.

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Table 2. Off-Street Parking Occupancy Survey Results: Weekdays

Commercial Core Areas	Number of Facilities Inventoried [a]	Inventoried Parking Spaces (Supply) [b]	Weekdays – Morning % Occupancy	Weekdays – Morning Unoccupied Spaces [c]	Weekdays – Afternoon % Occupancy	Weekdays – Afternoon Unoccupied Spaces [c]
Financial	22 / 21 [d]	7,279 / 7,171 [d]	34%	4,801	32%	4,845
Retail	31	12,027	32%	8,195	32%	8,165
Waterfront	8	2,028	44%	1,126	50%	1,018
Total Commercial Core	*61 / 60 [d]*	*21,334 / 21,226 [d]*	*34%*	*14,122*	*34%*	*14,028*
Areas outside Commercial Core						
Belltown North	19	3,657	15%	3,125	13%	3,194
Belltown South	26	2,706	38%	1,667	40%	1,619
Chinatown/ID Core	1	21	14%	18	62%	8
Chinatown/ID Edge	14	1,027	30%	717	33%	690
Denny Triangle North	25	7,133	20%	5,681	20%	5,726
Denny Triangle South	7	1,945	30%	1,356	36%	1,248
Little Saigon	1	167	23%	129	19%	135
Pioneer Square Core	4	810	34%	536	32%	553
Pioneer Square Edge	12	2,592	30%	1,813	30%	1,814
South Lake Union North	2	493	32%	333	32%	337
South Lake Union South	30	6,420	19%	5,190	20%	5,140
Stadium	4	2,575	12%	2,262	20%	2,049
Uptown Core	2	21	14%	18	33%	14
Uptown East	3	1,165	35%	759	28%	837
Uptown Edge	17	1,592	21%	1,251	19%	1,283
Uptown Triangle	5	620	22%	486	29%	438
Uptown Waterfront	1	108	34%	71	23%	83
Uptown West	3	457	34%	301	35%	296
Total for Subareas Outside Commercial Core	*176*	*33,509*	*23%*	*25,713*	*24%*	*25,464*
Total All Areas	**237 / 236 [d]**	**54,843 / 54,735 [d]**	**27%**	**39,835**	**28%**	**39,492**

Source: Heffron Transportation, Inc., Surveys perform from April 26, 2021 to June 18, 2021.

a. 'Number of Facilities inventoried' includes off-street facilities available for public parking during the workday between 8:30 A.M. and 6:00 P.M.

b. Indicates total parking supply for the surveyed facilities.

c. Unoccupied spaces represent the number of spaces where vehicles are not parked.

d. Survey crews were prohibited from entering in one facility in the Commercial Core Financial area during the afternoon period of the survey. The data are presented for "Morning / Afternoon".

Table 3. Off-Street Parking Occupancy Survey Results – Evening and Saturday

		Friday Evening				Saturday Midday			
Commercial Core	**Total Number of Facilities in Sample [a]**	**# Facilities Surveyed [b]**	**# Parking Spaces [c]**	**% Occupancy**	**Unoccupied Spaces [d]**	**# Facilities Surveyed [b]**	**# Parking Spaces [c]**	**% Occupancy**	**Unoccupied Spaces [d]**
Financial	5	3	271	3%	262	4	729	5%	692
Retail	6	6	4,175	17%	3,460	6	4,175	20%	3,347
Waterfront	3	2	243	70%	72	2	243	63%	90
Total Core Area	*14*	*11*	*4,689*	*19%*	*3,794*	*12*	*5,147*	*20%*	*4,129*
Areas outside Commercial Core									
Belltown North	5	4	1100	11%	979	5	1694	6%	1589
Belltown South	3	3	446	11%	396	3	446	33%	298
Chinatown/ID Core	0	--	--	--	--	--	--	--	--
Chinatown/ID Edge	4	4	544	32%	372	4	544	53%	253
Denny Triangle North	4	3	1764	12%	1557	3	1764	9%	1604
Denny Triangle South	0	--	--	--	--	--	--	--	--
Little Saigon	1	1	167	8%	153	1	167	11%	149
Pioneer Square Core	3	3	759	13%	658	3	759	17%	629
Pioneer Square Edge	3	3	1337	8%	1225	2	652	8%	601
South Lake Union North	0	--	--	--	--	--	--	--	--
South Lake Union South	6	6	2451	14%	2114	5	2079	16%	1755
Stadium	0	--	--	--	--	--	--	--	--
Uptown Core	0	--	--	--	--	--	--	--	--
Uptown East	1	1	1035	9%	939	1	1035	19%	839
Uptown Edge	3	3	463	13%	404	3	463	37%	290
Uptown Triangle	1	1	514	14%	440	1	514	18%	422
Uptown Waterfront	1	1	108	10%	97	1	108	3%	105
Uptown West	1	1	48	15%	41	1	48	17%	40
Total Outside Commercial Core	*36*	*34*	*10,736*	*13%*	*9,375*	*33*	*10,273*	*17%*	*8,574*
TOTAL ALL AREAS	**50**	**45**	**15,425**	**15%**	**13,169**	**45**	**15,420**	**18%**	**12,703**

Source: Heffron Transportation, Inc., Surveys perform from April 26, 2021 to June 18, 2021.

a. *The number of facilities that were selected for sampling in prior study years for the Friday Evening/Saturday Midday Occupancy Surveys.*

b. *The number of sample facilities that were open on Friday evenings or Saturday in 2021. It is noted that many facilities had reduced hours of operations during COVID, and were not open during these survey periods.*

c. *Number of parking* spaces indicate the total supply for the facilities surveyed.

d. *Un*occupied spaces represent the number of spaces where no vehicle is parked.

Table 4. Average Rates for Weekday Off-Street Parking

Commercial Core Area	Number of Facilities [a]	Average Parking Rate [b]				Early Bird Program [c]	
		2-Hour	4-Hour	All Day [d] 10-Hour/24-Hour	Over-night	% Offering Early Bird	Average Early-Bird Rate
Financial	22	$16.70	$24.16	$29.37 / $35.87	$33.43	41%	$16.81
Retail	31	$14.04	$21.02	$30.11 / $34.60	$32.00	39%	$17.22
Waterfront	8	$11.05	$16.22	$26.50 / $33.36	$52.28	50%	$17.91
Areas Outside Commercial Core							
Belltown North	19	$6.58	$11.44	$16.31 / $23.80	-- [e]	47%	$9.96
Belltown South	26	$12.55	$18.98	$24.56 / $32.33	$35.50	38%	$15.72
Chinatown/ID Core	1	$6.68	$13.35	$40.05 / NA	--	--	--
Chinatown/ID Edge	14	$8.60	$14.18	$19.29 / $22.25	--	21%	$11.77
Denny Triangle North	25	$10.39	$16.10	$26.49 / $33.05	--	40%	$17.43
Denny Triangle South	7	$14.42	$20.99	$29.42 / $33.49	--	--	--
Little Saigon	1	$3.34	$6.68	$8.90 / NA	--	--	--
Pioneer Square Core	4	$13.68	$23.94	$38.00 / $35.60	--	75%	$14.79
Pioneer Square Edge	12	$12.55	$18.35	$19.00 / $32.83	$31.69	42%	$15.24
South Lake Union North	2	$7.67	$13.31	$27.46 / $25.79	--	--	--
South Lake Union South	30	$6.19	$11.92	$23.18 / $25.12	$5.00	20%	$15.70
Stadium	4	$10.38	$16.32	$40.05 / $31.15	--	75%	$11.50
Uptown Core	2	$6.68	$10.01	$27.81 / NA	--	--	--
Uptown East	3	$10.04	$17.13	$14.50 / $30.00	--	--	--
Uptown Edge	17	$9.26	$15.24	$15.63 / $30.00	--	41%	$11.34
Uptown Triangle	5	$10.51	$18.67	$25.87 / $23.05	--	20%	$12.00
Uptown Waterfront	1	$8.00	$13.00	NA / $21.00	--	100%	$12.00
Uptown West	3	$5.33	$9.89	$14.76 / $20.00	--	67%	$5.06

Source: Heffron Transportation, Inc., Surveys perform from April 26, 2021 to June 18, 2021.

a. *"Number of Facilities" indicates facilities with posted rates.*

b. *Rates that did not include parking tax had the Seattle's Parking Tax rate of 11.25% applied before analysis. For 17 facilities, it was unknown if tax was included in the rate so an adjusted tax rate of half the Seattle Parking Tax rate (5.625%) was applied to these facilities.*

c. *Applies to customers who arrive before a set time in the morning and typically park all day.*

d. *All Day rates were split into two categories, 10-Hour and 24-Hour based on the rate signage posted for "All Day" rates.*

e. *Note. '--' indicates that there was no rate of that type for the referenced subarea.*

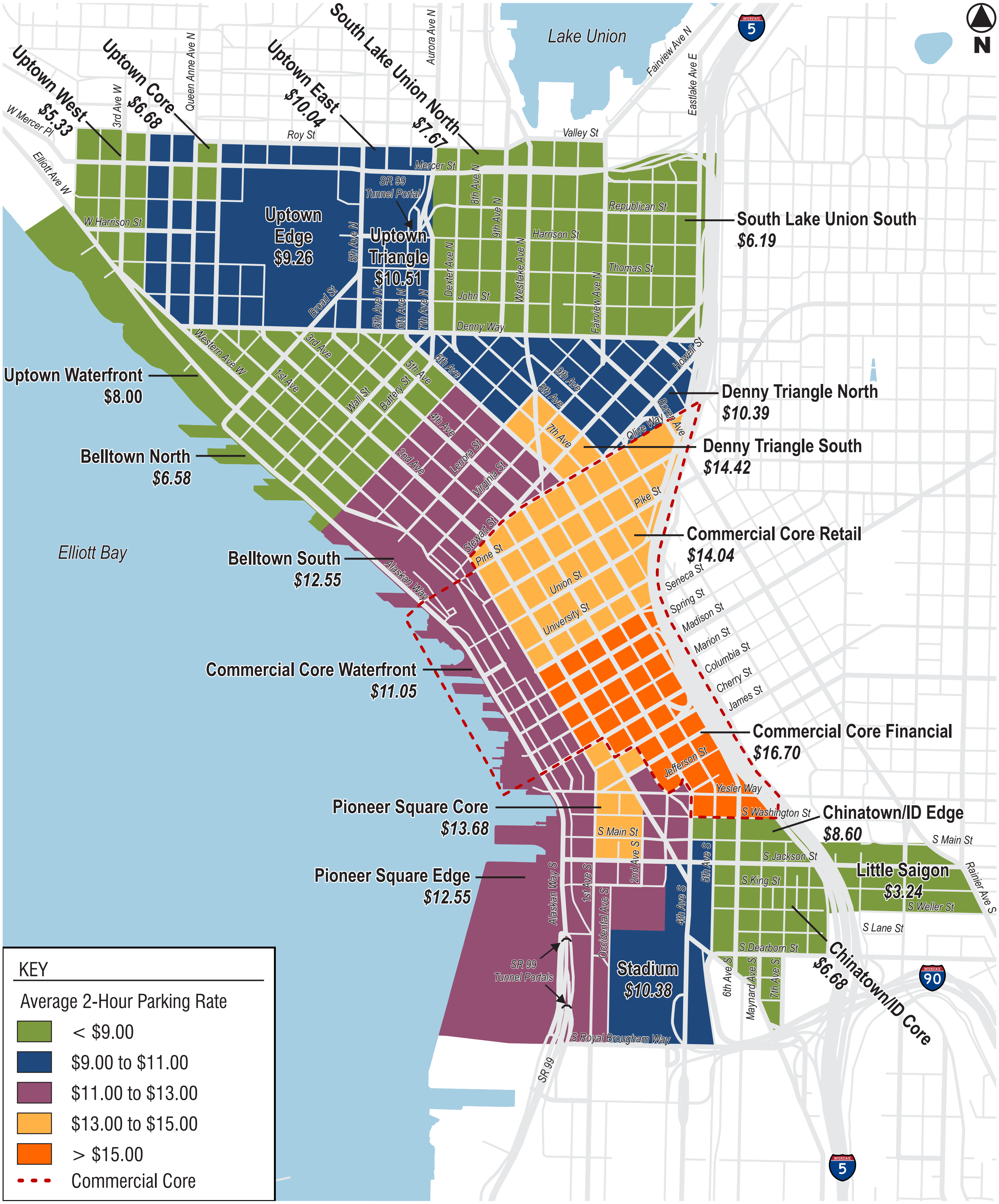

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Figure 3
2- Hour Parking Rate by Subarea

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Table 5. Parking Supply by Type of Space

Commercial Core	All Space Types [a]		EV Stations		Disabled		Carpool		Vanpool		Load/Unload		Carshare		Valet		Reserved	
	# of Facilities	Total Spaces	Spaces	% of Total	Spaces	% of Total	Spaces	% of Total	Spaces	% of Total	Spaces	% of Total	Spaces	% of Total	Spaces	% of Total	Spaces	% of Total
Financial	22	7,279	68	1%	159	2%	0	0%	5	0%	4	0%	2	0%	354	5%	879	12%
Retail	31	12,027	129	1%	264	2%	40	0%	13	0%	27	0%	10	0%	95	1%	821	7%
Waterfront	8	2,028	12	1%	37	2%	0	0%	0	0%	1	0%	5	0%	0	0%	505	25%
Areas Outside Commercial Core																		
Belltown North	19	3,657	3	<1%	69	2%	14	<1%	2	<1%	1	<1%	5	<1%	0	0%	191	5%
Belltown South	26	2,706	11	<1%	75	3%	2	<1%	0	0%	3	<1%	11	<1%	95	4%	195	7%
Chinatown/ID Core	1	21	0	0%	1	5%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Chinatown/ID Edge	14	1,027	0	0%	31	3%	0	0%	0	0%	2	<1%	0	0%	0	0%	50	5%
Denny Triangle North	25	7,133	254	4%	163	2%	150	2%	88	1%	0	0%	0	0%	0	0%	368	5%
Denny Triangle South	7	1,945	35	2%	56	3%	62	3%	36	2%	1	<1%	1	<1%	128	7%	76	4%
Little Saigon	1	167	0	0%	9	5%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Pioneer Square Core	4	810	0	0%	26	3%	0	0%	0	0%	0	0%	0	0%	0	0%	83	10%
Pioneer Square Edge	12	2,592	26	1%	52	2%	0	0%	0	0%	0	0%	6	<1%	93	4%	417	16%
South Lake Union North	2	493	59	12%	13	3%	0	0%	0	0%	0	0%	0	0%	0	0%	209	42%
South Lake Union South	30	6,420	222	3%	144	2%	54	1%	123	2%	3	<1%	8	<1%	0	0%	491	8%
Stadium	4	2,575	6	<1%	47	2%	0	0%	4	<1%	10	<1%	0	0%	0	0%	318	12%
Uptown Core	2	21	0	0%	2	10%	0	0%	0	0%	0	0%	0	0%	0	0%	3	14%
Uptown Edge [b]	23	3,214	10	<1%	77	2%	0	0%	5	<1%	0	0%	3	<1%	0	0%	175	5%
Uptown Triangle	5	620	0	0%	13	2%	2	<1%	0	0%	0	0%	0	0%	0	0%	77	12%
Uptown Waterfront	1	108	1	1%	2	2%	0	0%	0	0%	0	0%	0	0%	0	0%	5	5%
Total All Subareas	237	54,843	836	2%	1,240	2%	324	<1%	276	<1%	52	<1%	51	<1%	765	1%	4,863	9%

Source: Heffron Transportation, Inc., Surveys perform from April 26, 2021 to June 18, 2021.

a. 'Number of Lots' includes surveyed off-street facilities available for public parking during the workday between 8:30 A.M. and 6:00 P.M.

b. Combines Uptown Edge, East and West.

Note: Spaces not listed with a specific type of space are assumed to be general parking.

Table 6. Percent Occupancy by Type of Parking Space

	All Space Types [a]		EV Stations		Disabled		Carpool		Vanpool		Load/Unload		Carshare		Valet		Reserved	
Commercial Core	**# of Facilities**	**Total Spaces**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Financial	22	7,279	6%	26%	13%	14%	--	--	60%	80%	0%	0%	50%	0%	29%	18%	28%	31%
Retail	31	12,027	20%	22%	13%	12%	63%	70%	54%	85%	48%	33%	50%	30%	25%	25%	25%	26%
Waterfront	8	2,028	17%	17%	8%	32%	--	--	--	--	0%	0%	0%	0%	--	--	49%	45%
Areas Outside Commercial Core																		
Belltown North	19	3,657	0%	0%	6%	10%	0%	0%	50%	0%	0%	0%	80%	80%	--	--	32%	32%
Belltown South	26	2,706	18%	0%	11%	15%	0%	0%	--	--	0%	0%	9%	9%	0%	16%	20%	21%
Chinatown/ID Core	1	21	--	--	0%	0%	--	--	--	--	--	--	--	--	--	--	--	--
Chinatown/ID Edge	14	1,027	--	--	13%	6%	--	--	--	--	100%	100%	--	--	--	--	18%	34%
Denny Triangle North	25	7,133	24%	23%	6%	5%	9%	11%	2%	3%	--	--	--	--	--	--	25%	23%
Denny Triangle South	7	1,945	51%	71%	7%	9%	11%	6%	6%	3%	0%	0%	0%	0%	20%	14%	24%	24%
Little Saigon	1	167	--	--	11%	0%	--	--	--	--	--	--	--	--	--	--	--	--
Pioneer Square Core	4	810	--	--	4%	4%	--	--	--	--	--	--	--	--	--	--	51%	28%
Pioneer Square Edge	12	2,592	31%	15%	13%	13%	--	--	--	--	--	--	50%	67%	28%	2%	57%	55%
South Lake Union North	2	493	20%	17%	8%	0%	--	--	--	--	--	--	--	--	--	--	36%	34%
South Lake Union South	30	6,420	25%	28%	5%	6%	20%	17%	2%	1%	33%	33%	63%	63%	--	--	16%	25%
Stadium	4	2,575	0%	17%	4%	21%	--	--	0%	25%	20%	10%	--	--	--	--	9%	9%
Uptown Core	2	21	--	--	0%	0%	--	--	--	--	--	--	--	--	--	--	0%	100%
Uptown Edge [c]	23	3,214	60%	50%	10%	17%	--	--	--	60%	--	--	33%	67%	--	--	50%	41%
Uptown Triangle	5	620	--	--	8%	0%	0%	0%	--	--	--	--	--	--	--	--	38%	35%
Uptown Waterfront	1	108	0%	0%	0%	0%	--	--	--	--	--	--	--	--	--	--	0%	0%
Total All Subareas	**237**	**54,843**	**23%**	**26%**	**9%**	**11%**	**17%**	**18%**	**7%**	**9%**	**35%**	**25%**	**39%**	**37%**	**24%**	**16%**	**58%**	**50%**

Source: Heffron Transportation, Inc., Surveys perform from April 26, 2021 to June 18, 2021.

a. *'Number of Facilities' includes those* available for public parking during the workday between 8:30 A.M. and 6:00 P.M.

b. *'--' indicates that there was no available supply of that particular space type.*

c. *Combines Uptown Edge, East and West.*

4. Parking Trends since 2014

Three prior off-street parking studies have been performed for the Center City: 2014, 2016, and 2018. Although the number of facilities surveyed during each iteration has expanded, trends can be determined by comparing data for facilities that have been consistently surveyed over the years. This section presents those trends through the current 2021 study.

4.1. Change in Parking Supply

The total number of parking spaces that are publicly available in most of the subareas can be compared for the four study years. The results are summarized in **Table 7**.

Within the Commercial Core area, the number of parking spaces decreased between 2014 and 2016 by 4% as many surface parking lots were removed for new construction. The supply increased by about 8% between 2016 and 2018 (with an additional 1,880 spaces) when new buildings were completed, or new parking opened to the public. The supply decreased by 5% between 2018 and 2021 (a reduction of 1,278 spaces) primarily due to redevelopment projects, and a few facilities changing to private-use only.

For areas outside the Commercial Core, parking supply increased by 5% (an additional 1,499 spaces) from 2018 to 2021. The largest changes were in Denny Triangle North with the addition of 2,820 spaces, in Belltown South, where parking supply decreased by 17% (a reduction of 564 spaces), and Denny Triangle South with a decrease of 17% (a reduction of 520 spaces).

Table 7. Change in Parking Supply – 2014 to 2021

Commercial Core Areas	Number of Publicly-Available Off-Street Parking Spaces [b] 2014 [a]	2016 [a]	2018 [a]	2021[a]	% Change 2018 to 2021
Financial	8,522	8,536	9,358	8,679	-7%
Retail	13,103	12,221	12,898	12,628	-2%
Waterfront	2,069	2,000	2,357	2,028	-14%
Total Commercial Core	23,694	*22,748*	*24,613*	*23,335*	*-5%*
Areas Outside Commercial Core					
Belltown North	4,364	3,973	3,838	4,056	+6%
Belltown South	4,001	3,347	3,333	2,769	-17%
Chinatown/ID	1,129	813	1,012	1,048	+4%
Denny Triangle North	4,351	4,329	4,313	7,133	+65%
Denny Triangle South	2,043	1,710	3,002	2,482	-17%
Pioneer Square Core	1,476	1,294	1,312	1,241	-5%
Pioneer Square Edge	2,323	2,721	3,171	2,680	-15%
South Lake Union	NA [b]	6,795	7,886	8,154	+3%
Stadium	NA [b]	2,734	2,735	2,575	-6%
Uptown Triangle	NA [b]	593	657	620	-6%
Total for Areas Outside Commercial Core	Incomplete Data	*28,309*	*31,259*	*32,758*	*+5%*

Source Heffron Transportation Inc., September 2021.

a. Data compiled and analyzed using the Historical Database developed by Heffron Transportation Inc.

b. Not Applicable, data was not collected for these study areas.

4.2. Change in Parking Occupancy

Direct comparisons of parking occupancy are possible for 76 facilities that have been consistently surveyed across all four study years. **Figure 4** shows the location of these facilities.

2021 CENTER CITY
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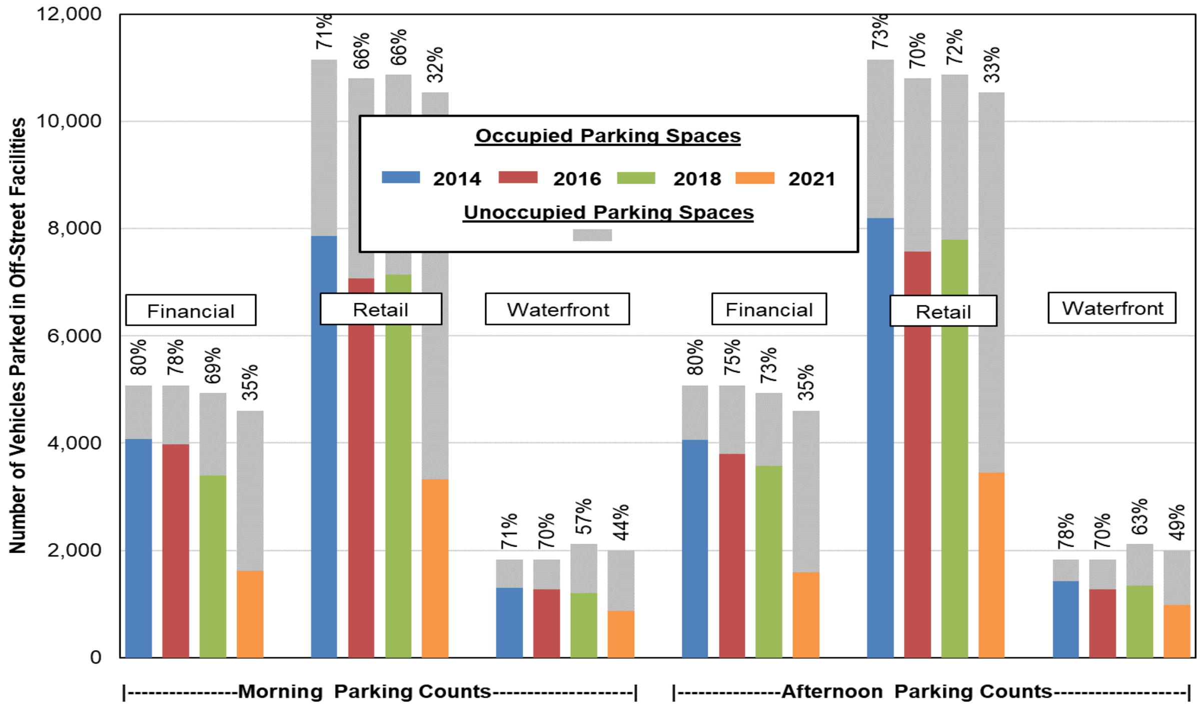
Figure 4
Comparison Facilities Across Study Years
(2014, 2016, 2018 and 2021)

heffron transportation inc

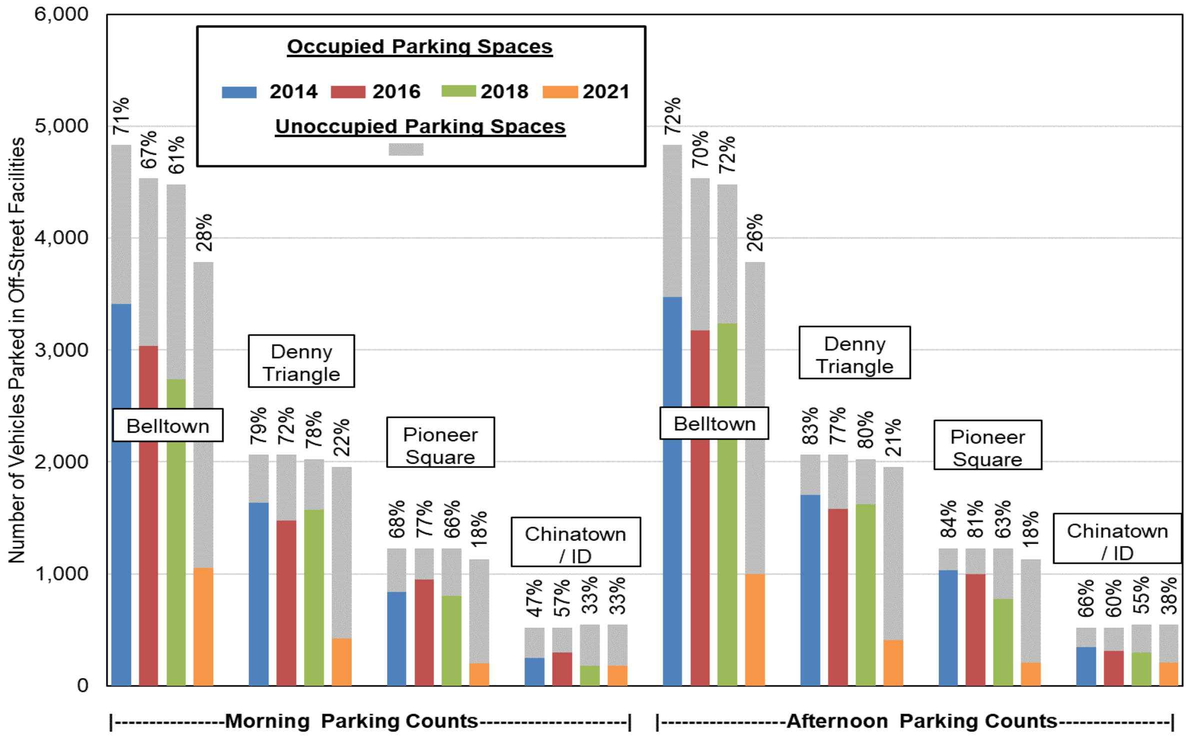
Figure 5 and **Figure 6** compare the number of occupied spaces within the Commercial Core Areas and areas outside of the Commercial Core, respectively. Overall, the number of vehicles parked in the comparative facilities has gradually decreased between 2014 and 2018 by a total of 7% in the morning and 4% in the afternoon across the six subareas analyzed. The 2021 occupancy is an outlier from prior-year studies and reflects COVID-19 pandemic conditions. In 2021, the average occupancy in the three Commercial Core subareas was 34% in the morning (compared to 66% in 2018) and 35% in the afternoon (compared to 71% in 2018). Outside the Commercial Core, the average year 2021 occupancy was 25% in the morning (compared to 64% in 2018) and 24% in the afternoon (compared to 72% in 2018). The subareas that experienced the largest decrease in occupancy were Denny Triangle and Pioneer Square. The least affected area was the Commercial Core Waterfront.

Figure 5. Change in Parking Occupancy at Select Facilities in the Commercial Core Areas



Source: Heffron Transportation, Inc., September 2021. Reflects the change in occupancy at 45 parking facilities in the Commercial Core areas (financial, retail and waterfront subareas) for which survey data were available in all four study years.

Figure 6. Change in Parking Occupancy at Select Facilities Outside the Commercial Core



Source: Heffron Transportation, Inc., September 2021. Reflects the change in occupancy at 31 parking facilities in several subareas outside the Commercial Core for which survey data were available in all four study years.

4.4. Change in Parking Rates

Table 8 compares the parking rates for the four study years. As shown, the average rates for 2-hour parking have stayed relatively flat. In 2014, the average cost to park for 2 hours was $11.63 (average for all areas). That increased to $11.23 in 2016, $11.38 in 2018, and decreased to $10.92 in 2021. Between 2014 and 2021 the 2-hour parking rate decreased by 6%.

While not every parking facility offered an Early Bird rate, 59 were identified in 2014, 99 were identified in 2016, 106 were identified in 2018 and 90 were identified in 2021. From the available data, the average Early Bird rate was $13.30 in 2014, $14.72 in 2016, $15.48 in 2018, and $14.82 in 2021. The drop in price between 2018 and 2021 may be a result of parking facilities offering reduced rates amid the COVID-19 pandemic.

The average rates for daily parking increased between 2014 and 2018. The average daily rate was $26.55 in 2014, $26.89 in 2016, and $28.80 in 2018 an overall increase of 8% between 2014 and 2018. In 2021, daily parking rates were collected for two categories: 10-hour (daily) parking and 24-hour (overnight) parking. In 2021, the average 10-hour parking rate was $24.24 and the average 24-hour parking rate was $30.57. Bundling these two rates resulted in an average bundled daily parking rate of $27.96 for an overall decrease of 3% since 2018. This decrease may be a result of parking facilities offering reduced rates amid the COVID-19 pandemic.

Table 8. Change in Average Rates for Off-Street Parking

	Average Rate [a]											
	2 Hour Parking				Early Bird Parking [b]				Daily Parking			
Commercial Core Area	**2014**	**2016**	**2018**	**2021**	**2014**	**2016**	**2018**	**2021**	**2014**	**2016**	**2018**	**2021 (10hr / 24hr) [c]**
Financial	$14.40	$15.86	$17.82	$16.75	$14.78	$14.59	$16.38	$16.85	$27.61	$33.95	$34.27	$29.43 / $34.19
Retail	$12.52	$12.93	$13.67	$14.06	$14.63	$18.47	$16.83	$17.24	$30.73	$30.83	$33.55	$30.14 / $33.92
Waterfront	$10.23	$11.39	$10.60	$11.15	$10.82	$14.67	$17.00	$18.03	$25.03	$32.80	$34.75	$26.67 / $33.56
Areas outside Commercial Core												
Belltown North	$5.94	$7.47	$7.02	$6.62	$8.51	$9.97	$11.77	$10.04	$17.00	$20.09	$18.87	$16.44 / $22.05
Belltown South	$9.78	$11.62	$11.83	$12.63	$12.61	$15.72	$15.72	$15.80	$26.49	$25.09	$27.75	$24.70 / $32.38
Chinatown/ID	$7.81	$8.72	$8.02	$8.53	$11.81	$12.68	$12.79	$11.91	$13.59	$20.20	$19.05	$21.39 / $22.50
Denny North	$10.68	$11.02	$10.48	$10.46	$14.50	$15.67	$16.17	$17.52	$24.08	$27.32	$28.81	$26.69 / $33.23
Denny South	$13.00	$12.18	$12.53	$14.50	$17.00	$15.63	$17.38	NA	$19.13	$28.27	$29.68	$29.55 / $33.66
Pioneer Square Core	$11.29	$13.35	$14.19	$13.78	$13.37	$17.46	$17.33	$14.95	NA	$39.27	$40.60	$38.00 / $36.00
Pioneer Square Edge	$8.60	$12.35	$13.92	$12.63	$12.67	$15.68	$16.68	$15.38	$25.00	$30.08	$35.21	$19.00 / $30.05
South Lake Union	NA	$7.90	$6.25	$6.52	NA	$6.86	$18.50	$15.80	NA	$20.99	$24.90	$23.64 / $24.70
Stadium	NA	$8.72	$9.81	$10.50	NA	$13.13	$12.38	$11.63	NA	$18.84	$21.34	$40.50 / $31.50
Uptown Triangle	NA	$7.30	$8.50	$10.53	NA	$7.56	$8.45	$12.00	NA	$20.47	$22.59	$25.97 / $23.05

Source: Heffron Transportation, Inc., September 2021.

a. *The average rate includes taxes. Rates from 2014, 2016 and 2018 have been updated to include the tax.*

b. *A discounted all-day parking rate that only applies to customers who arrive before a set time in the morning.*

c. *In 2021, 10hr and 24hr all day parking rates were studied separately. Past study years did not distinguish between these two all day rate types during the data collection process.*

5. Findings

The following summarizes the findings of the 2021 Center City Off-Street Parking Study, which collected parking occupancy data from late April through June 2021 during the COVID-19 pandemic:

- Weekday parking occupancy in the Commercial Core was 34% during the morning and the afternoon, which is about half of what has been in in the three prior off-street parking studies (2014, 2016 and 2018). Parking supply in the Commercial Core decreased by 1,278 spaces (-5%) between 2018 and 2021.

- In areas outside the Commercial Core, parking was 23% occupied on a weekday morning and 24% on a weekday afternoon. That is about one third of what has been in 2018. The highest occupancy was in the Chinatown/ID Core with 62%; the second to highest occupancy was Belltown South with 40% occupancy in the afternoon. The lowest occupancy was in the Stadium subarea with 12% occupancy in the morning

- Parking occupancy rates were much lower on Friday evenings and Saturdays than in prior survey years. The select facilities surveyed in the Commercial Core were 19% occupied on Friday evening and 20% occupied on Saturday. Even lower occupancy rates were found outside the core area, with 13% occupancy on Friday evening and 17% occupancy on Saturday. The highest occupancy occurred along the Waterfront, which reached 70% occupancy on Friday evening.

- The average parking rates for 2-hour parking have stayed relatively flat over the course of the four off-street parking studies. Over the past seven years, parking rates decreased by about 6%, from $11.63 in 2014 to $10.92 in 2021. The cost of daily parking increased by about 5% over the same seven-year period—from an average of $26.55 in 2014 to $27.96 in 2021.

CCL/JLM/MCH

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