2021 Parking Study: Parking Behaviors at Select Sites Report

2022

Human Dimensions Work Group
City of Boulder Open Space & Mountain Parks

Acknowledgements

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Cover photo taken by Chelsea Schroeder: vehicles lined up at a vehicle checkpoint for Eldorado Canyon State Park during an observation session at Doudy Draw.

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Introduction

In 2019 City of Boulder Open Space and Mountain Parks (OSMP) launched a parking study to better understand how OSMP-managed trailhead parking lots are used. Phase 1 was conducted from June 2019 to March 2020 in which system-wide baseline data on parking lot occupancy and capacity was collected across 34 trailhead parking lots. Phase 2 took place from May to July 2021 and focused on a subset of relatively busy trailhead lots to better understand some of the potential causes and impacts of congestion, including parking duration, number of people per vehicle, and number of failed parking attempts. This report provides methods and results of Phase 2.

Methods

Locations

Six locations were included in this study: Bobolink, Centennial, Doudy Draw, Flatirons Vista, The Peoples' Crossing, and South Mesa (Figure 1 and Figure 2). These sites tend to reach capacity more frequently than many other lots on the system (Reed 2022). The Peoples' Crossing, Centennial, and Bobolink are located within or adjacent to Boulder city limits. Flatirons Vista is the southernmost trailhead parking lot on the system at the southern part of Boulder County. South Mesa and Doudy Draw are also in the southern part of the system close to Eldorado Springs State Park, and Doudy Draw has been observed to serve as overflow parking for South Mesa. Doudy Draw, Flatirons Vista, and South Mesa are fee parking areas for vehicles registered outside of Boulder County. Although Chautauqua tends to be the busiest OSMP trailhead, this site was excluded since a targeted study had already been conducted for this area as part of the Chautauqua Area Management Plan (Fehr & Peers, 2013).

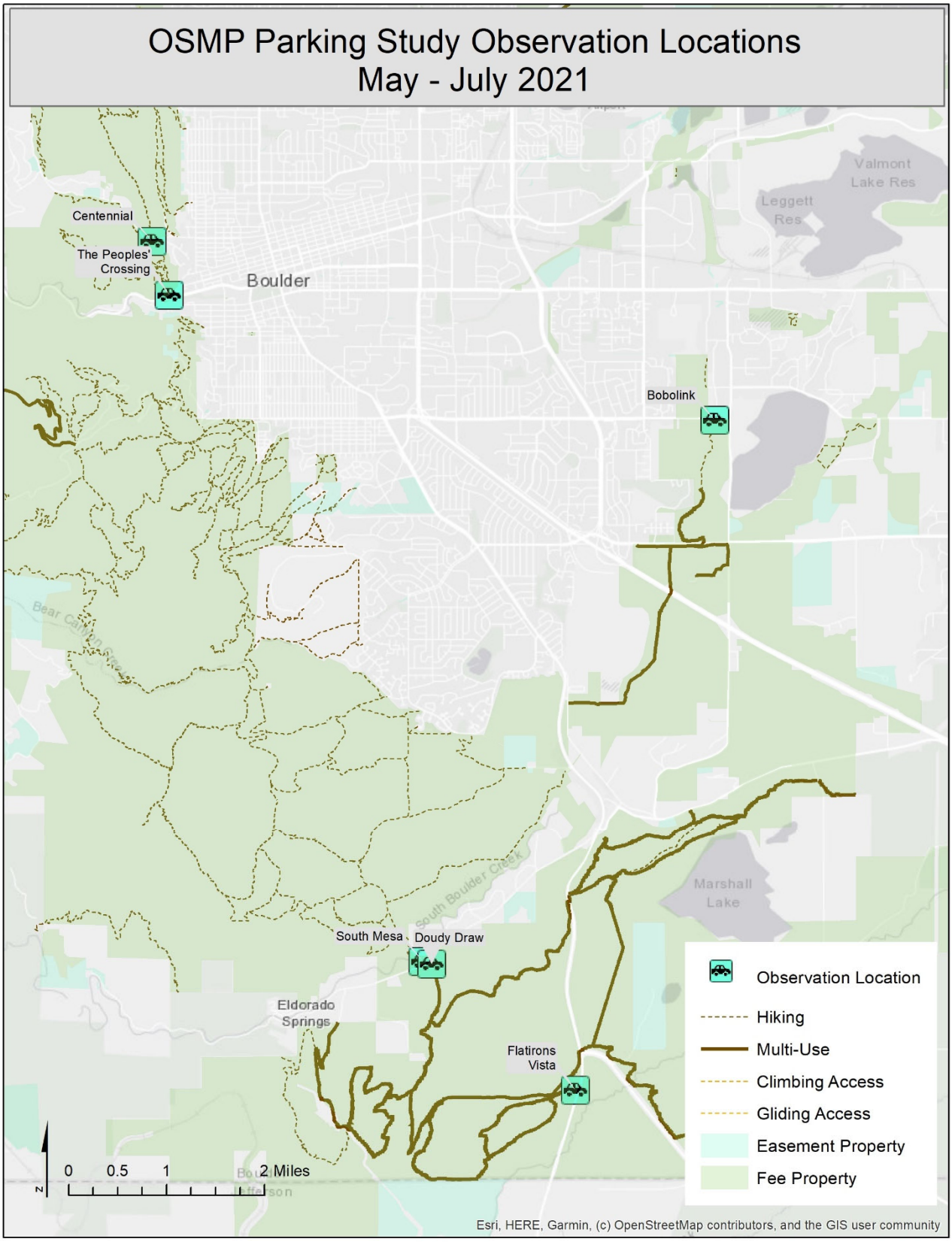


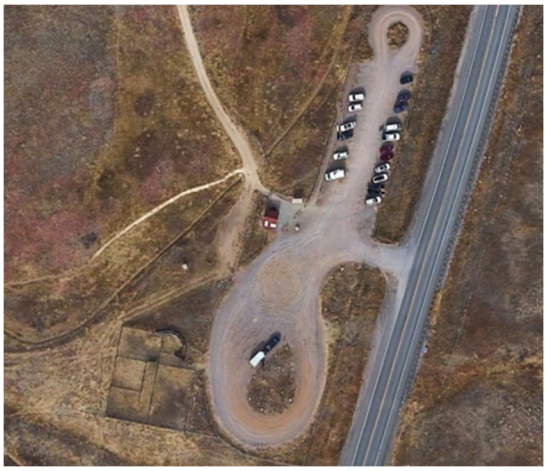
Figure 1. Locations included in the study.

Bobolink

Centennial

Doudy Draw

Flatirons Vista



The Peoples' Crossing

South Mesa

Figure 2. Representative photos and aerial images of trailheads included in the study.

Sample

Data collection ran from May 2021 through July 2021, and all observation sessions were from 9:00 a.m. to approximately 1:15 p.m. The sample was stratified by weekdays and weekends, with a total of eight sessions per location (four on weekdays and four on weekends). Sixteen sessions were scheduled per month. The first weekend session was Bobolink and the first weekday session was Flatirons Vista, and the following sessions were scheduled alphabetically. Within these parameters, sessions were scheduled opportunistically.

Starting in June, a checkpoint for entry into Eldorado Canyon State Park was instated on weekends and vehicles that were turned away from the State Park were routed through the Doudy Draw trailhead. This resulted in some skewed data for some sessions. Three of the four weekend observation sessions at Doudy Draw occurred while this checkpoint was in place, although on one of the dates (June 26th) the checkpoint was staged but they never turned around vehicles during the observation period. On another date (July 17th), the checkpoint was removed part way through the observation period around 11:30 a.m.

The dates selected for the sample are provided in Table 1.

Table 1. Parking Study Phase 2 locations and same dates.

Month	*Weekend Location*	*Weekend Date*	*Weekday Location*	*Weekday Date*
May	Bobolink	5/15/21	Flatirons Vista	5/24/21
	Centennial	5/15/21	The Peoples' Crossing	5/11/21
	Doudy Draw	5/22/21	South Mesa	5/17/21
	Flatirons Vista	5/22/21	Bobolink	5/17/21
	The Peoples' Crossing	5/16/21	Centennial	5/18/21
	South Mesa	5/16/21	Doudy Draw	5/24/21
	Bobolink	5/23/21	Flatirons Vista	5/25/21
	Centennial	5/23/21	The Peoples' Crossing	5/18/21
June	Doudy Draw (check point)	6/5/21	South Mesa	6/3/21
	Flatirons Vista	6/5/21	Bobolink	6/3/21
	The Peoples' Crossing	6/12/21	Centennial	6/4/21
	South Mesa	6/12/21	Doudy Draw	6/4/21
	Bobolink	6/19/21	Flatirons Vista	6/10/21
	Centennial	6/19/21	The Peoples' Crossing	6/10/21
	Doudy Draw (check point)	6/26/21	South Mesa	6/11/21
	Flatirons Vista	6/26/21	Bobolink	6/11/21
July	The Peoples' Crossing	7/3/21	Centennial	7/1/21
	South Mesa	7/3/21	Doudy Draw	7/1/21
	Bobolink	7/10/21	Flatirons Vista	7/2/21
	Centennial	7/10/21	The Peoples' Crossing	7/2/21
	Doudy Draw (check point)	7/17/21	South Mesa	7/8/21
	Flatirons Vista	7/24/21	Bobolink	7/8/21
	The Peoples' Crossing	7/24/21	Centennial	7/16/21
	South Mesa	7/25/21	Doudy Draw	7/22/21

Replacement or Cancelled Sessions

Sessions were replaced with another location if the trail was closed due to a muddy trail closure (this occasionally occurs at Doudy Draw and Flatirons Vista). The replaced sessions were completed once muddy trail closures were lifted during the next available scheduled session.

A session was cancelled and rescheduled when unsafe weather conditions occurred such as lightning, or if rain was substantial enough to interfere with the electronic devices used for data collection. Rescheduled sessions were conducted at the next available date, and the following sessions were shifted to later in the month.

Breaks

If a break was needed, the observer skipped a 45-minute "Inbound" session (described below) due to the distance of some restrooms from the observation point. An example of a session with a break is in Table 2. These sessions had 135 minutes of observation (2 hours and 15 minutes) instead of 180 minutes (3 hours). It is not expected that these breaks substantially impacted results.

Table 2. Example observation session timeline with a break taken from 12:15 to 13:00.

TIME	*TASK*
8:45 - 9:00	Hike to location, set-up
9:00 - 9:15	Stationary
9:15 – 10:00	Inbound
10:00 - 10:15	Stationary
10:15 - 11:00	Inbound
11:00 - 11:15	Stationary
11:15 - 12:00	Inbound
12:00 - 12:15	Stationary
12:15 - 13:00	BREAK
13:00 - 13:15	Stationary
13:15 - 13:30	Hike back to vehicle

Observations

A data collection form was designed using Fulcrum App mobile data collection platform and data were collected via a mobile device. The sessions were divided into "Stationary" and "Inbound" observations.

Stationary

Stationary observations took place at the top of the hour for 15 minutes during which the observer walked through the parking lot and recorded license plates. If a vehicle did not have any license plates or they were not visible, the observer recorded a description of the vehicle (e.g., "redtruck" or "silversubaru"). Vehicles parked outside of designated parking areas within the parking lot were included (e.g., vehicles parked in no parking areas or sedans parked in horse trailer designated parking areas). Official OSMP vehicles parked in a standard parking space were recorded but excluded from analysis.

Inbound

Inbound vehicles were recorded in 45-minute increments at 15 minutes past the hour until the top of the next hour. For purposes of this study all motor vehicles (including motorcycles, mopeds, busses) were categorized as a single vehicle and bicycles were excluded. As a vehicle entered the lot, the

observer recorded the number of people observed in the vehicle, and whether the vehicle parked. If the vehicle parked, the observer documented if the people in the vehicle accessed the observed site (i.e., the OSMP trail or picnic area that the parking lot was intended to serve). For example, if the vehicle parked at The Peoples' Crossing and the people walked toward Pearl Street this was recorded as a "no". Those who parked at Doudy Draw and walked over to the South Mesa trailhead were also recorded as "no". A three-minute threshold was used to consider the activity a "visit" to OSMP. For example, individuals who parked, used the restroom, and left right after were recorded as Parked: yes, Accessed trail/facility (the observed site): no. If the vehicle did not park, the observer documented if it was a "turn away" (i.e., a failed parking attempt), or if it did not park for some other reason (e.g., dropping people off, using the lot as a turn-around area). Vehicles that did not park for some other reason were categorized as "Other".

Definitions and Variables

Some definitions related to this study are provided below.

- **Parking duration**: the length of time a vehicle was parked recorded at hourly intervals.
- **Inbound vehicles:** the number of vehicles that entered the parking area over a defined time.
- **Turn-away:** the proportion of vehicles that entered the parking area but did not park over a defined time due to a failed parking attempt. Inbound vehicles that entered but did not park for another reason (e.g., dropping off visitors, using the lot as a turn-around area) were documented and categorized as "Other".
- **Observed site:** the OSMP trail or picnic area under observation for the session.
- **People-per-vehicle:** the number of observed people in the vehicle.

The outcome variables calculated for this study via the two observation methods are outlined in Figure 3 below.

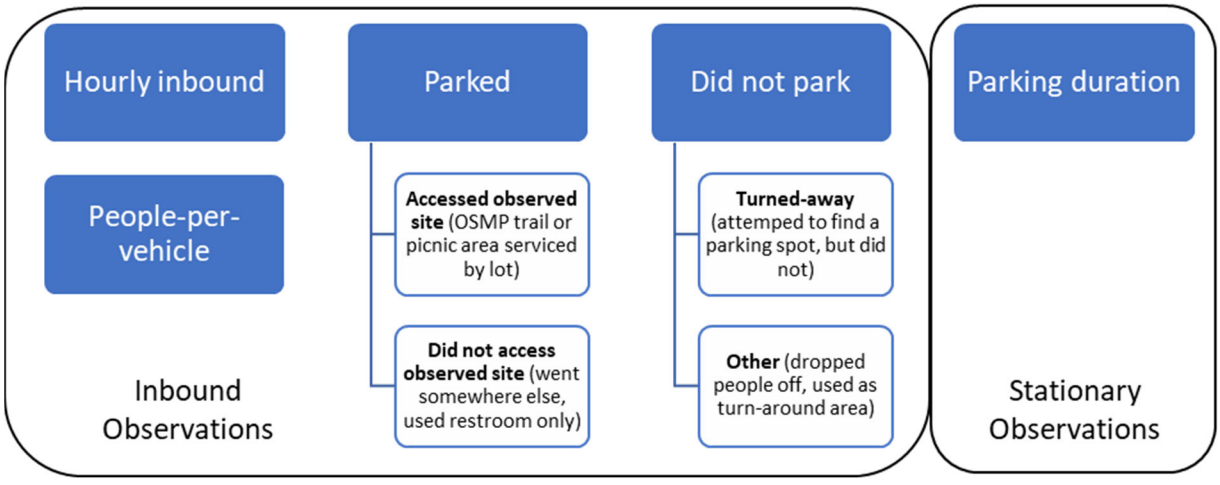


Figure 3. Variables collected for this study.

Analysis and Results

Inbound Vehicles

The number of inbound vehicles was observed in four 45-minutes sessions from 9:00 a.m. to 1:00 p.m. An inbound session was skipped if a break was needed, resulting in three 45-minute observation

sessions per day. The number of inbound vehicles per 45-minute period was divided by .75 to approximate hourly inbound vehicles. Results are provided in Table 3 and Figure 4.

On average, the highest number of hourly inbound vehicles was observed at Doudy Draw, with 47 inbound vehicles per hour estimated on weekend days. However, three of the four weekend observation days at Doudy Draw were conducted during the Eldorado Canyon State Park checkpoint pilot. During this pilot vehicles were turned away from entering the State Park when parking reached capacity and were routed through the Doudy Draw parking lot to turn around. All these vehicles were included in the inbound observations since the observer could not reliably discern whether the intended destination was Eldorado Canyon State Park or the Doudy Draw parking lot.

On average, Centennial on weekends had 40 inbound vehicles per hour, with a maximum of 65. The Peoples' Crossing had the lowest average number of inbound vehicles at 11 per hour on weekdays. Bobolink has a similar number of hourly inbound vehicles regardless of weekday or weekends.

Table 3. Number, average, minimum and maximum hourly inbound vehicles by location and weekday/weekend. Values are estimated from 45-minute observations conducted May – July 2021, 9:00 a.m. to 1:00 p.m.

		Average Hourly Inbound (standard deviation)		Minimum Hourly Inbound		Maximum Hourly Inbound	
Location	n	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend
Bobolink	311	15 (5.8)	15 (4.9)	7	7	24	23
Centennial	755	23 (9.4)	40 (15.0)	5	17	41	65
Doudy Draw	592	12 (7.2)	47 (33.8)	1	5	27	112
Flatirons Vista	450	15 (4.8)	23 (8.3)	8	8	21	36
South Mesa	604	20 (7.4)	31 (14.6)	8	15	40	59
The Peoples' Crossing	316	11 (6.7)	16 (4.5)	3	8	29	25

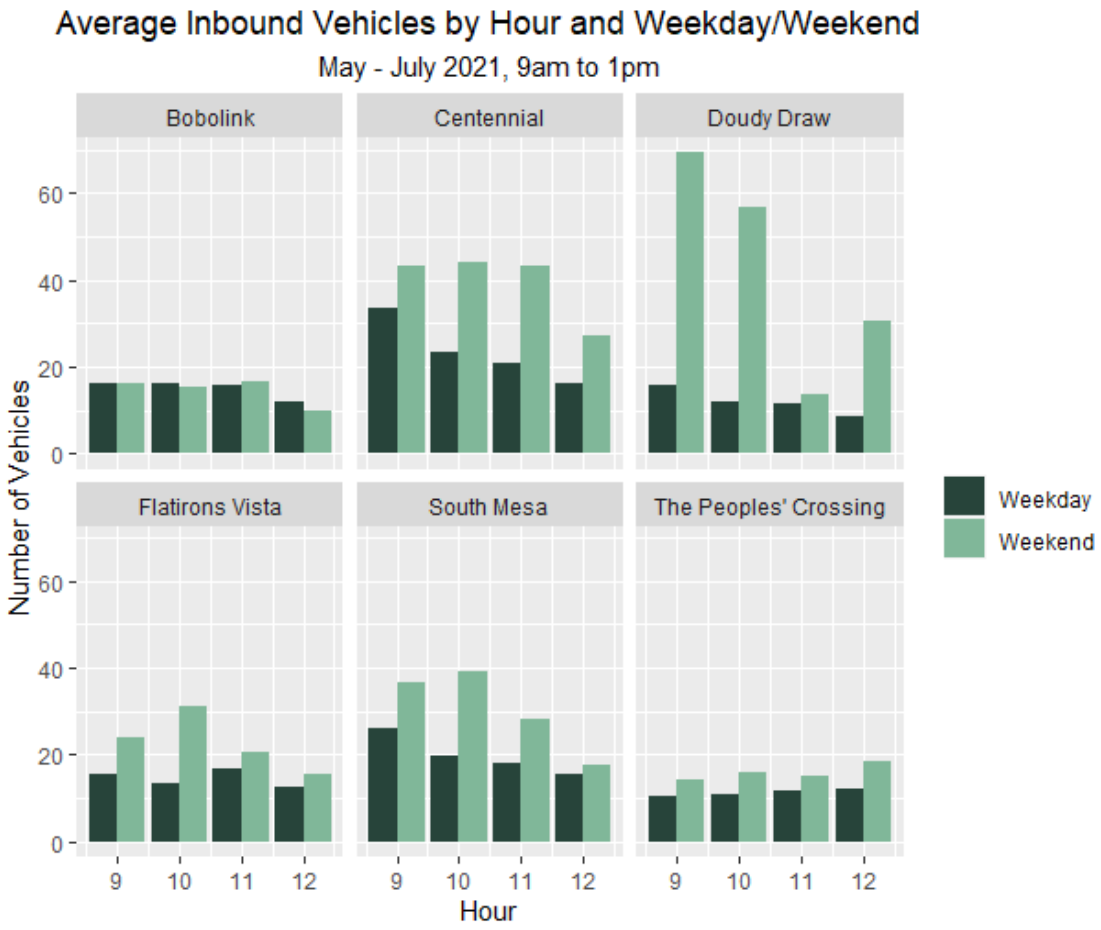


Figure 4. Average number of inbound vehicles by hour and weekday/weekend.

People-Per-Vehicle

Most vehicles observed had one or two people in them. Across all locations, overall people-per-vehicle (PPV) averaged 1.8, ranging from 1.7 on weekdays to 1.9 on weekends. Across all dates, PPV ranged from an average of 1.6 at Bobolink to 1.9 at Centennial, Doudy Draw, Flatirons Vista, and The Peoples' Crossing (Table 4). Although the averages for PPV were slightly higher on weekends, the largest groups were generally observed on weekdays, the highest being a group of 15 at Centennial. Centennial averaged 1.9 PPV regardless of weekday or weekend. Across all locations around 45% of vehicles were single occupancy, ranging from 40% at Flatirons Vista to 59% at Bobolink.

These PPV results are similar to on-site OSMP visitor survey results where 49% of respondents reported visiting by themselves and average group size was 1.6 (VanderWoude & Kellogg, 2018). This is higher than the proportion reported for Boulder County Parks and Open Space where 33% of respondents reported visiting by themselves (Marotti & Guesman, 2022). Visitors to Horsetooth Mountain Open Space and Red Mountain Open Space in Larimer County had average group sizes of 2.5 and 3.5, and 30% and 13% reported visiting alone, respectively (Larimer County & Colorado State University, 2019). Visitors to Eldorado Canyon State Park and Rocky Mountain National Park also tend to travel in groups with average group sizes of 3.1 and 2.7, respectively (Colorado Parks and Wildlife, 2021; Papadogiannaki, Le, & Hollenhorst, 2011).

It was also not always possible to track each vehicle to record the number of people inside. The percentage of vehicles for which PPV was not recorded was about 11%, ranging from 1% at Bobolink to 30% at Doudy Draw. We do not expect these missed vehicles bias the results. Missed observations were most likely to occur during busy hours (9:00 a.m. and 10:00 a.m.) and on weekends, and we did not see substantial variation for those variables.

Table 4. Number of people-per-vehicle observed. Observations were conducted May – July 2021, 9:00 a.m. to 1:00 p.m.

Location	n	Average PPV		Overall average PPV (standard deviation)	Percent single occupancy	Max PPV
		Weekday	Weekend			
Bobolink	307	1.5	1.8	1.6 (0.9)	59%	5
Centennial	698	1.9	1.9	1.9 (1.2)	42%	15
Doudy Draw	417	1.6	2.0	1.9 (1.1)	41%	11
Flatirons Vista	398	1.8	2.0	1.9 (1.1)	40%	8
South Mesa	579	1.7	1.9	1.8 (1.0)	46%	12
The Peoples' Crossing	307	1.7	2.0	1.9 (1.2)	46%	13

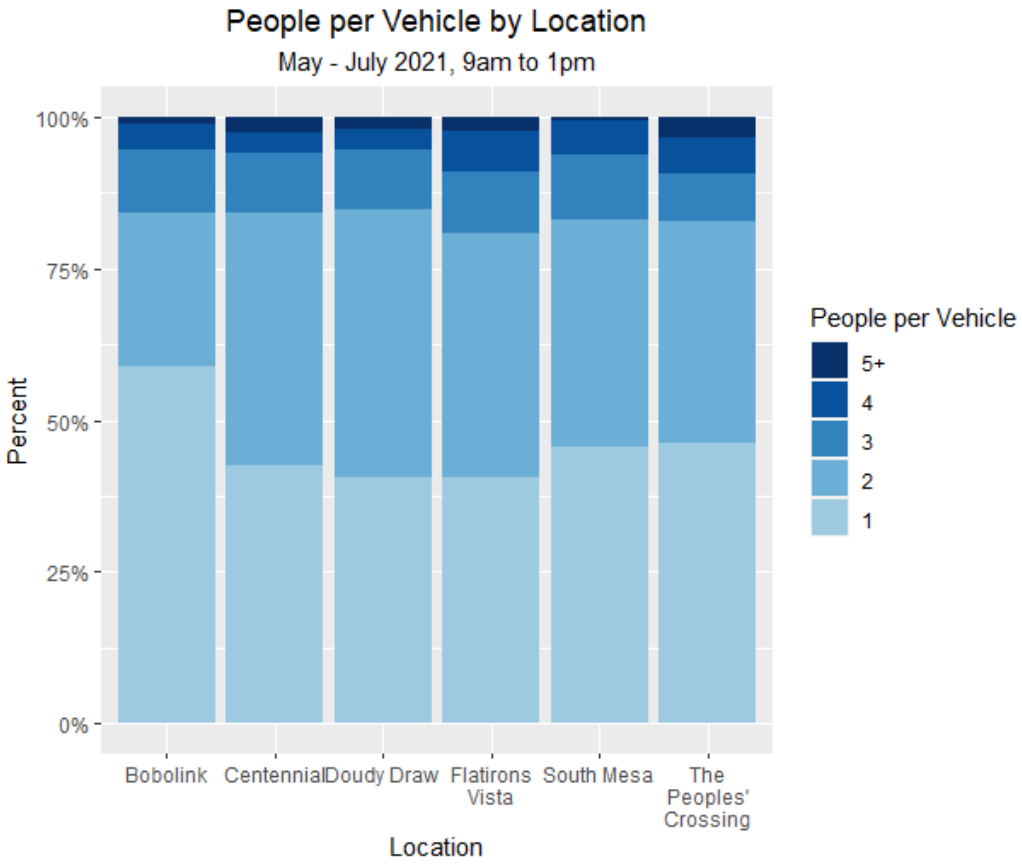


Figure 5. Percent of people per vehicle by location.

Ability to Park

During the observed days and time periods (9:00 a.m. to 1:00 p.m.), Doudy Draw had the highest proportion of vehicles who entered the lot but did not park at 60% (Table 5). However, many of these vehicles were actually turned away from the Eldorado Canyon State Park check-point. During this period, it was not feasible to distinguish vehicles entering the Doudy Draw lot with the intent to access Eldorado Canyon State Park from those intending to visit Doudy Draw. The next highest was Centennial, at which 57% of vehicles that entered the lot did not park. This proportion increased to 63% on weekend days. The lowest proportion was observed at Bobolink, in which 10% of vehicles that entered the lot did not park. Across all locations, most turn-aways occurred on weekends and during the 9:00 a.m. and 10:00 a.m. observations periods.

Table 5. Proportion of inbound vehicles that parked and did not park. Of those that parked, the proportion that accessed the observed site (OSMP trail or picnic area serviced by that lot) or not. And of those that did not park, the proportion that were turned away versus did not park for another reason (e.g., dropped someone off, turned around). Observations were conducted May – July 2021, 9:00 a.m. to 1:00 p.m.

				Parked		Did not park	
Location	n	Parked	Did not park	Accessed Observed Site	Did not access Observed Site	Turned Away	Other
Bobolink	310	90%	10%	97%	3%	47%	53%
Centennial	728	43%	57%	93%	7%	89%	11%
Doudy Draw	558	40%	60%	54%	46%	80%	20%
Flatirons Vista	437	81%	19%	91%	9%	64%	36%
South Mesa	590	63%	37%	93%	7%	76%	24%
The Peoples' Crossing	304	81%	19%	73%	27%	47%	53%

Accessing Observed Site

Overall, most people accessed the observed site (the trail or picnic area serviced by the trailhead) after parking. The lowest percentage was at Doudy Draw at 54%, however most of these cases were likely to cross over to South Mesa. Nearly all users (97%) at Bobolink accessed the observed site after parking. Just under three quarters (73%) of those at The Peoples' Crossing did.

Turn-Aways

Most vehicles that entered a trailhead parking lot and did not park appeared to have been turned away (i.e., the lot was already at capacity, and the people in the vehicle appeared to be looking for a parking space based on the best judgement of the observer). This was most frequently the case at Centennial at 89%. Of vehicles that entered the lot and did not park, Bobolink and The Peoples' Crossing had relatively higher proportions of vehicles that did not park for a different reason at 53% each. Some of these reasons include picking up or dropping off visitors or using the lot as a turnaround area.

Figure 6 shows the proportion of vehicles that parked, and whether the people accessed the observed site or not, and the proportion of vehicles that did not park, and if this was because they were turned away or for a different reason. As with PPV, the observers were not always able to follow every vehicle. We do not expect these missed vehicles bias the results, and they are excluded from the results presented for clarity.

Approximately a third (31%) of visitors to Horsetooth Mountain Open Space in Larimer County reported being turned away at some point due to a full parking lot (Larimer County & Colorado State University, 2019). It is not clear how these results compare to other nearby agencies.

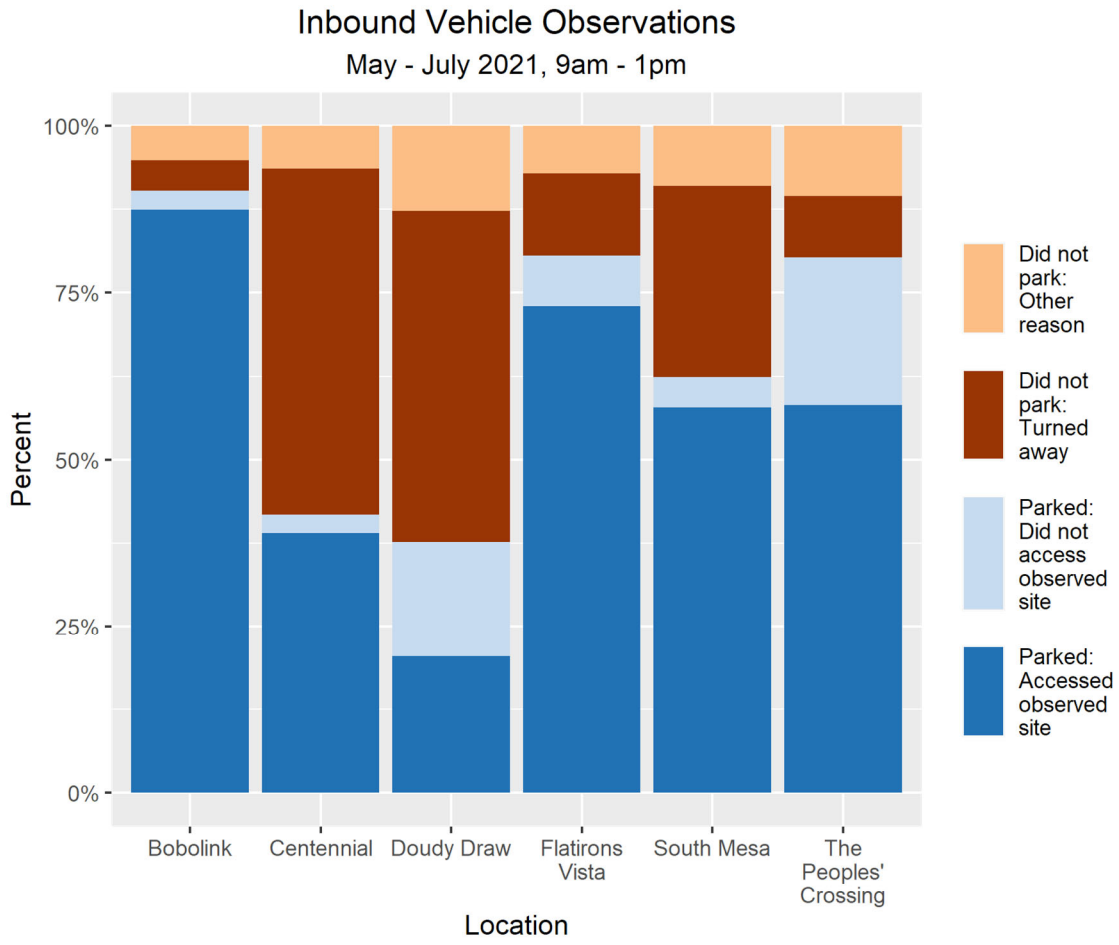


Figure 6. Inbound vehicle observations by location.

Parking Duration

Vehicles recorded during the first or last session (i.e., 9:00 a.m. to 9:15 a.m. or 1:00 p.m. to 1:15 p.m.), and were not recorded again during the observation period, were categorized as "Unknown" since they could have arrived much earlier than 9:00 a.m. or left much later than 1:00 p.m. The proportion of vehicles excluded from analysis for this reason ranged from 24% at Doudy Draw to 36% at Bobolink. Vehicles that were recorded more than once were included. For example, a vehicle that arrived at 8:00 a.m. and left at 11:05 a.m. is included in the dataset and would be categorized as "2+ hours" since it would have been recorded at 9:00 a.m., 10:00 a.m., and 11:00 a.m. We know the vehicle was there for a minimum of two hours, but we do not know the upper end of the parking duration. This could result in an underestimate of vehicles parked for longer periods of time. At the same time, vehicles parked for short durations could also be underestimated if they arrived and departed outside of one of the 15-minute collection periods. Although this methodology does not provide precise parking duration estimates, it still provides valuable insight regarding the proportion of vehicles parked for shorter versus longer periods of time, and how different sites compare to each other.

The site with the highest proportion of vehicles parked at least four hours (the entire session period) was South Mesa (8%), followed by Doudy Draw and The Peoples' Crossing (7% each; Table 6; Figure 7). The site with the shortest parking duration was Bobolink, with 42% of vehicles parked for less than two hours (observed once during the stationary observations).

From a system-wide on-site survey, the average self-reported trip duration to OSMP is one hour, and 12% of respondents reported visiting for two or more hours (VanderWoude & Kellogg, 2018). Just 1% of respondents reported visiting for four or more hours. The difference in results could be due to differing data collection locations, data collection methods, or vehicles parked for longer periods than trip times.

Table 6. Known parking duration by location. Observations were conducted May – July 2021, 9:00 a.m. to 1:15 p.m.

Location	n	Unknown duration[1]	< 2 hours[2]	1+ hour[3]	2+ hours	3+ hours	4+ hours
Bobolink	509	36%	42%	19%	1%	1%	<1%
Centennial	617	30%	18%	31%	14%	2%	5%
Doudy Draw	557	24%	20%	30%	14%	4%	7%
Flatirons Vista	597	26%	22%	38%	9%	3%	1%
South Mesa	809	26%	14%	31%	14%	7%	8%
The Peoples' Crossing	379	31%	30%	20%	8%	4%	7%

[1] Vehicles recorded just once at the beginning or end of the session were categorized as "Unknown" since we do not know how long before or after the session they were there.
[2] Vehicles that arrived after the session began but were only recorded once were categorized as "< 2 hours". These vehicles could have been parked for a very short period, but we know the duration did not exceed two hours.
[3] Vehicles that were recorded two or more times have a known minimum parking duration, but unknown upper end.

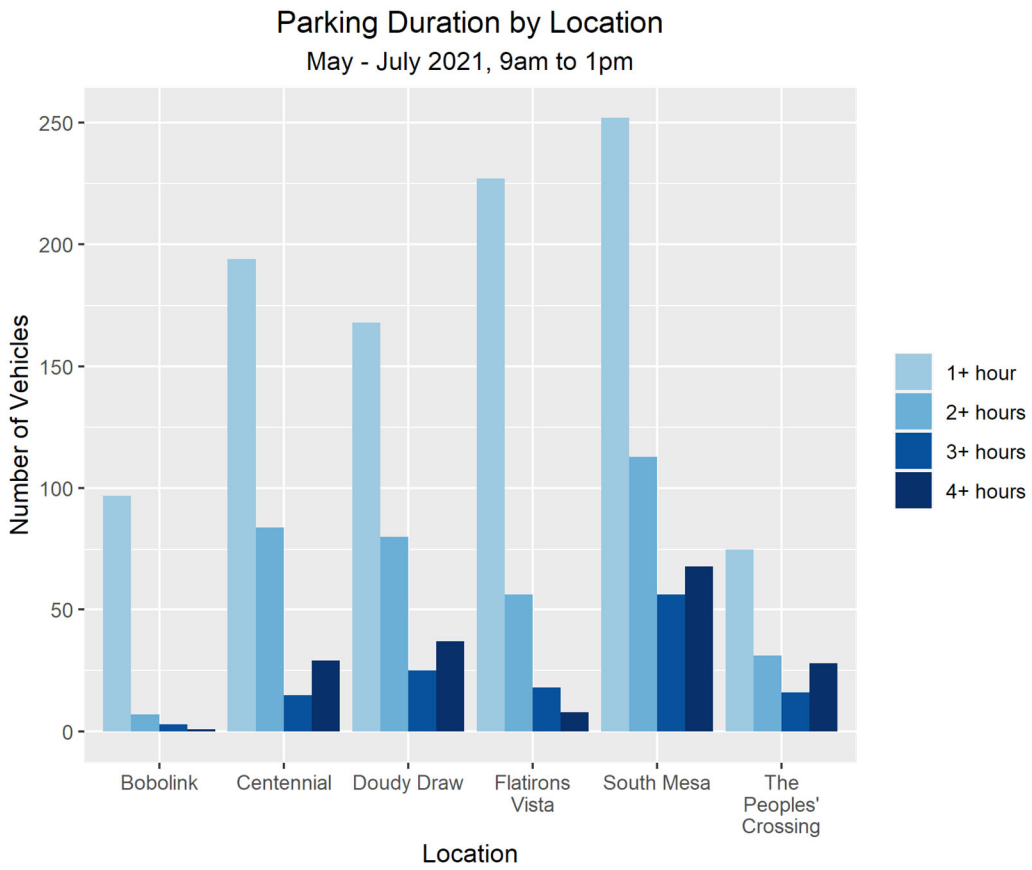


Figure 7. Parking duration by location. Only shows vehicles known to be in the lot for over one hour. The upper end of the parking duration is unknown.

Discussion

A parking lot may be considered to reach its effective supply when 85-90% of spaces are utilized (Fehr & Peers, 2013). Phase 1 of the parking study found, on average, occupancy is generally below this threshold at most OSMP trailheads (Reed, 2022). But that is not to say this threshold is exceeded at certain times and locations. Phase 2 was conducted to better understand parking behaviors at a few of these more congested locations. Despite intentionally targeting relatively busy days and times, most (81%-90%) people in vehicles entering Bobolink, Flatirons Vista, and The Peoples' Crossing trailhead lots were able to find a parking spot upon entry to the lot. This proportion was lower at South Mesa (63%) and Centennial (43%). Doudy Draw was also low at 40%, but this was heavily impacted by the Eldorado Canyon State Park check-point.

This study found Bobolink had the highest proportion of single-occupancy vehicles, although rates were similar across all sites. Bobolink also had the shortest parking durations. This is perhaps because it is conducive to quick activities as South Boulder Creek Trail extending from the trailhead is relatively short, flat, and accessible to nearby neighborhoods. Although this is a popular trailhead frequented by single-occupancy vehicles, it also has a higher level of turnover and the proportion of vehicles turned away appears to be less of an issue.

South Mesa had the highest proportion of vehicles parked for longer periods of time, likely because the trailhead connects to many different trail options and destinations such as Bear Peak and South Boulder

Peak that take more planning and time to get to. Following Doudy Draw (where many people crossed over to South Mesa), The Peoples' Crossing had the highest proportion of vehicles that used the trailhead parking lot for purposes other than accessing the observed site. This could likely be due to its proximity to Peal Street, Eben G. Fine Park, Boulder Creek, and it can be used as a park-n-ride to go up Boulder Canyon Drive.

The impacts of congestion to the visitor experience can also vary by location. Doudy Draw and Centennial trailhead lots had a relatively high proportion of vehicles that were turned away. This impact might be expected to be greater for people at the Doudy Draw and South Mesa trailheads, where they may have to drive back through Eldorado Springs Drive if they do not find parking at either of these locations. Those attempting to park at Centennial trailhead have more options to park nearby, although this can increase impacts to the surrounding neighborhoods.

It can be frustrating to not find a parking space at an intended destination, and it if fair to say this negatively impacts the visitor experience. Some management options to consider include exploring multi-modal options to reach trailheads, such as shuttles or multi-use paths; providing parking occupancy information on the website or installing live cameras at trailheads so people can better plan their trips; encouraging carpooling; modifying lot size or layout; modifying regulations; or dispersing use to less congested times or locations where a similar experience could be obtained. Any strategy considered will need to balance visitor experiences with ecosystem health.

Finally, improvements may also be considered for vehicular circulation, signage, accessibility, bike racks, and other measures identified in a Trailhead Assessment report provided by Confluent Design which compared OSMP trailheads to each other as well as to other peer agencies (Confluent Design, 2021). For example, all trailheads in the assessment apart from The Peoples' Crossing received a "Fair" rating for vehicular circulation (The Peoples' Crossing received an "Excellent" rating).

Limitations

This was an exploratory study, and the variables collected here are not exhaustive. Other causes of congestion include accessibility to alternative parking areas, multimodal transportation options, and weather. Other impacts of congestion include neighborhood impacts, noise, emissions, and personal impacts of not finding a parking space. In addition to further exploring these variables, future research could expand the number of locations, months, and hours of day observed. For example, although visitation is reduced in winter months (Leslie, 2018), visits are condensed to a shorter number of daylight hours and may still impact congestion levels. Future studies could explore whether people in turned away vehicles ultimately hiked at that location or went somewhere else, assess visitor expectations of congestion prior to visiting, gain a better understanding of what attracts visitors to certain locations, and compare OSMP use to other peer agencies.

Parking duration was longer than expected based on on-site survey results and could warrant further study. Increasing the frequency of license plate recording and extending the observation period over four hours would increase the quality of parking duration data.

Because the sample was intentionally during busy times, it was at times difficult to record all the different variables. This resulted in some missing data, primarily people-per-vehicle. A future study could limit the number of variables observed and reduce the amount of missing data.

Finally, the parking lots were sometimes at capacity by the time the observer arrived, and then had emptied by the end of the session (likely due to high mid-day heat and occasional thunderstorms). When the Eldorado Canyon State Park checkpoint was in place vehicles were marked as "turn-away" if the lot was at capacity, although it was not always possible to determine if these were turned away from Eldorado Canyon State Park or Doudy Draw.

Conclusion

Taken together, both parking study phases provide a more comprehensive understanding of parking utilization of OSMP trailhead parking lots including demand, supply, and parking behaviors. Phase 1 provided baseline lot occupancy data and a better understanding of lot capacity (Reed, 2022). Phase 2 focused on a subset of trailheads to better understand parking behaviors, including some potential causes and impacts of congestion, and how these vary by location.

Visits to OSMP often start with parking, and it can be an important part of the visitor experience. Trailhead parking lot supply does not always meet demand, resulting in congestion and people turned away from their intended destination. In addition to a location's popularity, trailhead parking lots can have high levels of occupancy for many additional reasons. Of the sites included in this study, South Mesa had vehicles parked for the longest periods of time, Bobolink had the highest proportion single occupancy vehicles, and The Peoples' Crossing had a relatively high proportion of vehicles parked for reasons other than visiting OSMP. Any management approaches considered will need to take these causes into account.

Finally, unintentional impacts of management approaches that facilitate increasing access will need to be considered as well. These could include ecological impacts, impacts to surrounding parking areas such as neighborhoods, as well as the visitor experience on trails. Continued monitoring and collaboration with other groups such as city and county transportation departments, the city's Community Vitality department, and other adjacent jurisdictions will be important moving forward.

References

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