



Device Sharing Report

Date: October 7, 2019
To: Honorable Mayor and City Council
Through: Jim Thompson, City Manager
From: Brent Stockwell, Assistant City Manager; Susan Conklu, SR. Transportation Planner
Subject: Device Sharing Report

On Nov. 13, 2018, City Council adopted Ordinance No. 4372 amending the Scottsdale Revised Code relating to bicycles and related devices, including electric bicycles and scooters. The updated ordinance took effect on Dec. 13, 2018. The City Manager was directed to share a full report following the end of the tourism season. This report provides an update on scooter-related issues in Scottsdale from Dec. 13, 2018 to April 14, 2019. In addition, updated city data has been provided through mid-July 2019.

BACKGROUND

The ordinance specifically regulates the parking and operation of bicycles, electric bicycles, motorized bicycles, motorized skateboards, motorized play vehicles, and stand-up electric mini-scooters. The ordinance defined where these devices could and could not be parked and operated, rather than proposing regulations specific to device sharing companies. The report stated that additional regulatory measures could be taken if the ordinance measures were not enough to address most concerns.

Staff have continued to meet with device sharing companies and coordinate through email throughout the year. This includes initial meetings to provide information on city requirements prior to each company's launch (See Attachment 1), follow-up meetings to look at problem areas and violations, emails regarding specific issues, and specific restrictions related to special events. Special event restrictions include requesting removal of all scooters from an area such as Parada del Sol, Rock 'n' Roll Marathon, and the Entertainment District during event weekends, as well as designating an area for device parking during Spring Training games.

Staff also worked with residents, merchants, and property owners to address unique situations caused by device sharing companies. City transportation staff developed a map of restricted device areas and bicycle rack locations to aid companies in proper placement and operations of devices. These maps are available on the city's Open Data Portal:

- Restricted areas: <http://data.scottsdaleaz.gov/dataset/restricted-bike-and-scooter-areas>
- Bike rack locations: <http://data.scottsdaleaz.gov/dataset/bike-rack-locations>

In addition, staff created a frequently asked question page for the public, which also included information on how to report concerns: <https://www.scottsdaleaz.gov/codes/bike-scooters>

USE OF SCOTTSDALE EZ SYSTEM FOR COMPLAINTS

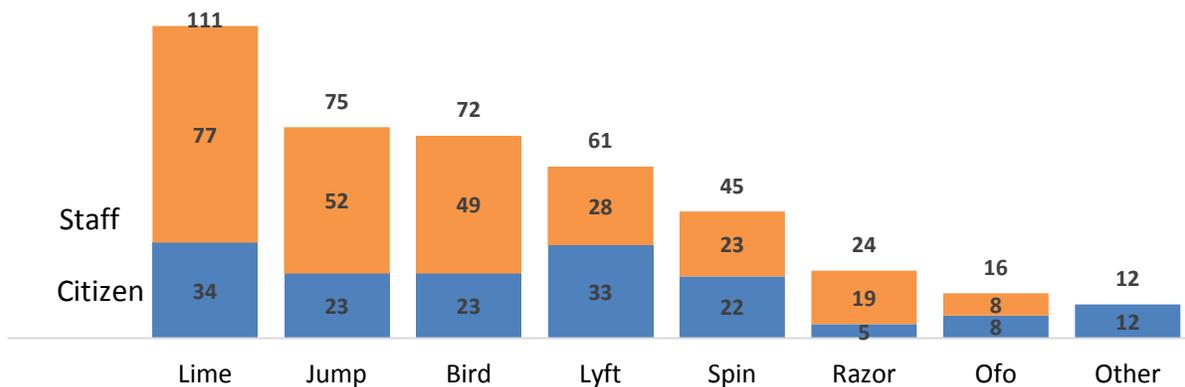
The City of Scottsdale has an online mobile-optimized web application for people to report issues to the city. This system is called ScottsdaleEZ. The system is also used to track complaints about shared device

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parking. The ScottsdaleEZ system received 419 reports throughout the season and summer (December 13, 2018 to July 15, 2019), of which 256 (61 percent) were reported by three city staff team members (Attachment 2). The city also provides a way for the public to also report issues through 480-312-RIDE during business hours, which transfers them to the Call Center. From there, staff enters the information into ScottsdaleEZ for the caller. This system is also set to automatically notify the device sharing company-provided contacts whenever an EZ report is submitted. There is a feature where the company contacts can update and close out reports after they address and resolve each issue.

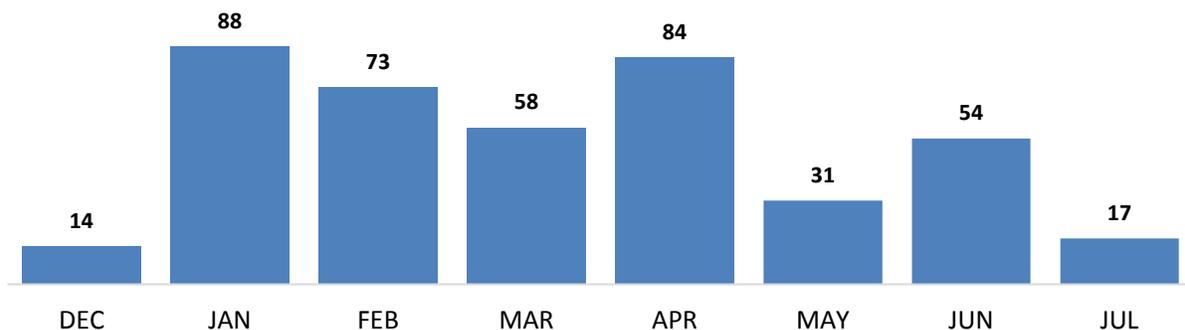
Chart one shows how many violations were reported to each company, with Lime receiving the most. Chart two lists the number of reports related to shared devices generated each month. January and April experienced the highest number of ScottsdaleEZ reports. Chart three displays the types of violations that were reported. Parking Where Prohibited, was reported the most frequently. This violation includes parking on a sidewalk, in a landscaped area, as well as blocking access to curb ramps and pedestrian push buttons.

Chart One: ScottsdaleEZ Reports by Company. This chart shows how many ScottsdaleEZ reports were generated for each company, how many were generated by city staff and how many by the public.



Note: December was Dec. 13 – 31 and July was July 1-11 only.

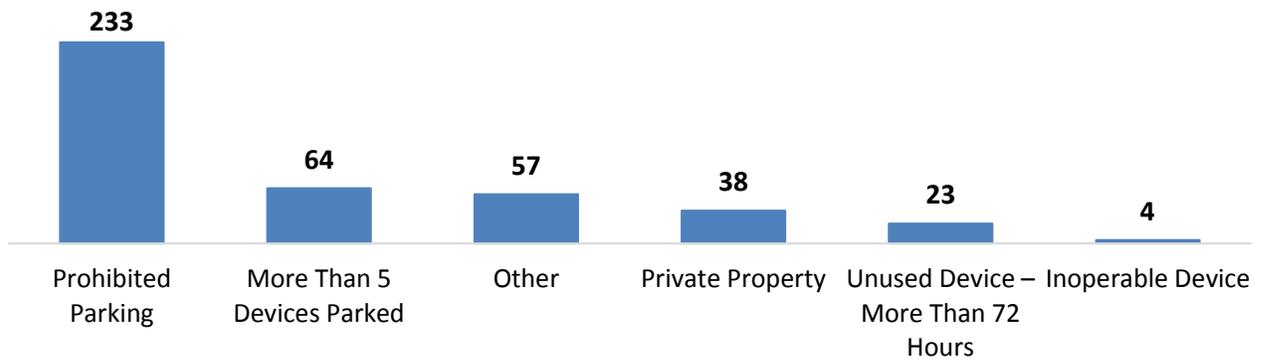
Chart Two: ScottsdaleEZ Reports by Month. This chart shows scooter-related reports by month. **Note:**



December was Dec. 13 – 31 and July was July 1-11 only.

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Chart Three: ScottsdaleEZ Reports by Violation. This chart shows reports by category of violation.



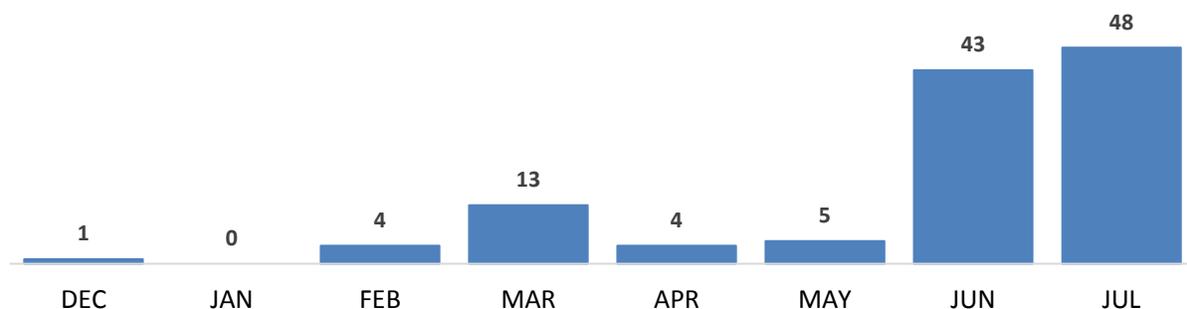
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POLICE DEPARTMENT CALLS AND CITATIONS

During Spring Training, the Scottsdale Police Department provided education to scooter riders on three weekends. This included education on where to park and details about traffic laws for scooters. During the third weekend, police issued some citations near Scottsdale Stadium for offenses like riding scooters while intoxicated and reckless behavior.

From Dec. 13, 2018 through July 13, 2019, Police calls related to scooters included at least 113 citations and five arrests (see Chart four and Attachment three). Of these, 92 (81 percent) were for parking violations, the rest were for moving violations, such as reckless riding, riding under the influence, failure to yield or failure to obey traffic control devices. The city has not impounded scooters for logistical reasons, including limited staff resources and no approved fee structure for relocating or impounding scooters. Staff is proposing a fee of \$25 for relocating scooters and \$50 for impounding each scooter.

Chart Four: Police Citations and Arrests by Month. This chart shows how many scooter-related citations and arrests occurred each month.



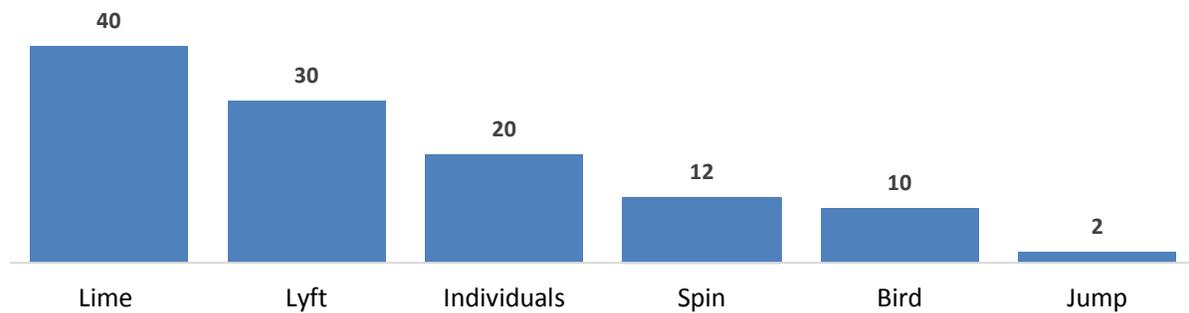
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COURT FINES

From Dec. 13, 2018 through July 13, 2019 there were 114 citations filed, including one filed by the prosecutor. At that time, 49 had been adjudicated, 65 were still pending, \$9,295.80 had been assessed and \$8,364.00 had been paid. In all, five companies and various individual riders received citations.

Chart Five: Court Cases by Company. This chart shows how many scooter-related citations were filed with the Scottsdale City Court by company.



Note: December was Dec. 13 – 31 and July was July 1-13 only.

FIRE DEPARTMENT CALLS

The Scottsdale Fire Department reported 89 total calls for service involving rental scooters which had caused an injury and required an emergency medical service response between Dec. 13, 2018 and July 18, 2019. Of the total, 67 patients were treated and transported to a local hospital, with the remaining 22 refusing further care on scene or transportation to a local hospital by ambulance. During that same period, there were 15,989 total EMS incidents. Scooter calls reflected about 0.56 percent of all EMS calls. The city does not have data related to the final disposition of the patients transported to the hospital.

INJURIES

HonorHealth Emergency Department's trauma program director provided information about all trauma patients with scooter-related injuries at the HonorHealth Osborn trauma center from Jan. 1, 2018 to Aug. 22, 2019. During this period, there were 116 cases- 40 were female and 76 were male. The average age was 26, but patients ranged from 14 to 84 years old. The length of stay ranged from one to 19 days. Five patients were transferred from the emergency department to the operating room. There were 66 patient cases in which alcohol was involved. Only two patients reported using helmets.

In addition, in April 2019, a study was published by the Public Health and Transportation Departments in Austin, Texas in association with the Centers for Disease Control and Prevention. During the three-month study period, there were nearly one million scooter trips in Austin. On average, the study showed that 20 individuals were injured per 100,000 scooter trips taken. The study findings can be summarized as: wear a helmet, don't ride too fast, be careful when riding in the street and be extra careful if you are a new rider. The report is at: <http://www.austintexas.gov/news/scooter-injury-study-report-released>

SOCIAL MEDIA INTERACTIONS (ZENCITY)

The data presented here is from zencity, an analytics tool that analyzes public social media posts and social reactions to news articles to provide insight into what people are saying in the community. The charts below show how public conversation on this topic has occurred over time. There were 2,441 interactions related to shared devices during the time period of Dec. 13, 2018 to July 15, 2019. Zencity reviews online electronic interactions in Scottsdale and uses an algorithm to categorize statements as positive, negative or neutral.

Chart Six: Sentiment Overview. For the initial time period, 11 percent of online interactions were positive and 19 percent negative, but the vast majority (70 percent) were neutral.

SENTIMENT OVERVIEW

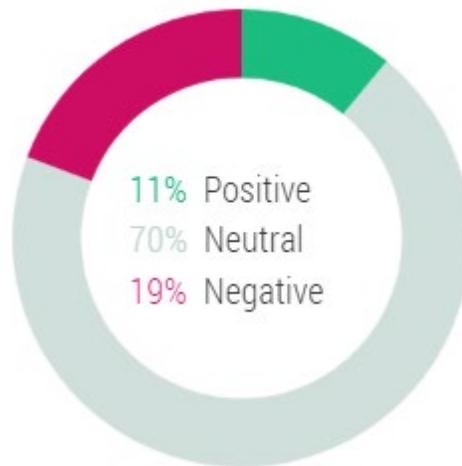
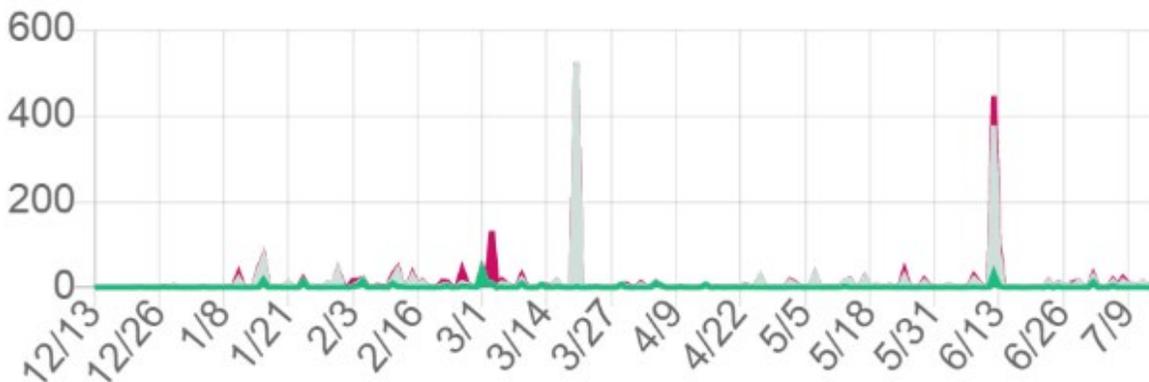


Chart Seven: Interactions over time. This chart tracks sentiment over time to demonstrate how public sentiment changed over the identified time period. The “score” is the total number of interactions at that point. The spikes, such as those seen in March and June, show how particular news articles or posts by individuals with large social media followings have driven the conversation during those periods. One should not look at the sentiment as a foolproof objective “score,” but rather as a general indicator.

SCORE OVER TIME

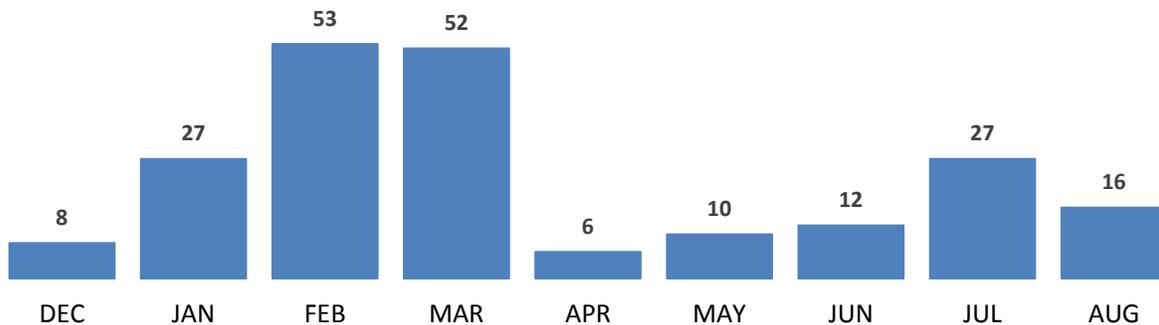


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CITIZEN FEEDBACK

The Mayor and City Council received 211 emails regarding this topic from Dec. 13, 2018 to Aug. 16, 2019. These 211 emails reflect 29 different people. A few of these were from scooter companies. Most were from citizens and merchants giving comments ranging from operational issues to asking for bans on scooters.

Chart Eight: Emails to Mayor and City Council by Month. This chart shows scooter-related emails by month.



Note: December was Dec. 13 – 31 and August was Aug. 1-16 only.

RIDERSHIP DATA

The city requested data from device sharing companies regarding their operations in Scottsdale from Dec. 13, 2018 through April 14, 2019. Because the city does not have contractual relationships requiring the provision of data, it was voluntarily provided by the following companies: Bird, Lime, Lyft, Razor and Spin. Uber/Jump did not respond to requests to provide data on usage but was no longer operating in Scottsdale at the time the request was made. Table One shows a summary of the data for the five companies that participated. Table Two lists data for each company. The total days of operation varied for each.

Table One: Summary of Self-Reported Data from Companies

Company Data	Total
Total number of rides (five of six companies)	292,408
Total miles ridden (four of six companies)	318,888
Number of unique riders	110,300
Total hours of use (on rides)	60,086
Average ride in minutes	13
Average ride in miles	1
Average number of daily rides per vehicle	1.778
Average number of rides per unique rider	2.253

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Table Two: Self-Reported Data for Each Company

	Bird	Lime	Razor	Lyft	Spin
Days of operation	122	122	120	80	46
Average number of vehicles deployed	2,197	700	167	660	531
Total number of rides	106,446	134,708	5,571	33,000	12,683
Total miles ridden	91,672	170,000	Unavailable	39,000	18,216
Number of unique riders	45,575	40,689	2,899	15,000	6,137
Total hours of use (on rides)	21,439	26,941	1,407	8,000	2,299
Average ride in minutes	12.0	12.0	15.0	14.5	10.9
Average ride in miles	0.9	0.8	Unavailable	1.2	1.4
Average number of daily rides per vehicle	4.6	1.6	1.0	1.2	0.5
Average number of rides per unique rider	2.3	2.7	2.0	2.2	2.1
Peak days and peak hours	Unavailable	Fri., 4-9 p.m.; Sat., 12-9 p.m., Sun., 12-7 p.m.	See tab	Sat/Sun early evening	Sat & Sun and 3-5 PM
Customer revenue during this period of time – per use, per minute	Unavailable	\$4.17/trip, \$.34/min.	\$20,620 total	Unavailable	\$4.74/use, \$.44 per min.

STAFF IMPACTS

Staff from multiple departments coordinated extensively on shared device issues since April 2018. This required a considerable amount of time away from other duties.

The staff team was comprised of an assistant city manager, sr. assistant city attorney, police commander, police lieutenant, police community action officer, sr. transportation planner, transportation director, old town specialist and citizen service supervisor. The team met with each company before they started operations in Scottsdale to discuss improvements needed to the scooter program and to draft this report.

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These staff members continue to communicate with representatives from each company, meet internally several times each month, correspond throughout the day as issues arise and personally report violations using ScottsdaleEZ.

KEY ISSUES

There are several issues to consider as the city updates regulations for devices.

1. Should scooters be treated the same or differently from bicycles? Treating them differently could cause confusion with the users and the general public. In addition, the state statute passed in 2019 presumes that scooters are to be treated similarly to bicycles. Since these devices are only occasionally used for relatively short periods of time, the city should ensure regulations are not overly complex.
2. How far should Scottsdale go to protect the public from themselves? Requirements for wearing helmets, dual riding, age restrictions and insurance requirements for companies have been debated in some cities. However, these are issues typically covered in state vehicle regulations, rather than city ordinance. Further regulation of these issues may result in attempts at state legislative preemption.
3. Will regulations withstand changes in devices over time? Scottsdale should anticipate the changes in types of devices over time and how regulations can adapt to new devices in the future. For example, bike share came first and quickly left, then scooters and now sit-down scooters. What types of devices might be deployed in the future and can regulations withstand the test of time?
4. Some devices are under private ownership by residents and are not shared devices. As the city considers further regulating shared devices, regulations for privately-owned, personal-use devices should remain in place.

RECOMMENDATIONS

Staff discussed the next steps the city could take to address issues which emerged during the initial ordinance period and has developed a draft ordinance for public comment (Attachment Five). Staff is scheduling discussion and possible action on these matters later in 2019. The proposed draft ordinance includes the following:

1. **Updates to Conform with State Law¹**. The name and definition of devices was changed to “electric scooter” from “stand-up electric mini-scooter” to conform with state law (Sec. 17-76). In addition, a new definition for electric miniature scooter was added (Sec. 17-90).

¹ City staff were involved with the drafting of legislation with the goal to preserve local authority to regulate these devices. At one point, there was preemptive language included, but cities were able to keep this language out of the final bill. In August 2018, the Arizona State Legislature passed legislation that takes effect in August 2020 and grants operators of electric scooters the same rights as operators of bicycles, except where further regulated by the local government. Under the current statute, a person riding a bicycle in a bike lane, or when there is no bike lane on a roadway’s shoulder, is granted all of the same rights and privileges as the driver of a vehicle (e.g. right-of-way) and is subject to all of the same duties (e.g. signaling turns, avoiding pedestrians, etc.) except for certificate of title, registration, vehicle license tax, emissions inspection, driver license, vehicle insurance, and safety equipment for motorcycles (e.g. helmet) requirements. The new law allows local authorities to adopt ordinances further regulating or prohibiting the operation of electric scooters except for requiring registration and licensing such as with motor vehicles. The new law allows electric scooters to be used on multiuse paths if allowed by the local authority.

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2. **Impoundment.** An impoundment fee of \$50 and a relocation fee of \$25 for devices relocated or impounded by city staff. Although the original ordinance authorized city staff to impound or relocate devices, no fees were established at that time (Sec. 17-78).
3. **Parking and Placement.** A requirement that the devices only be parked in an upright position and in bicycle racks or designated parking areas on public property. While the original ordinance directed devices to be placed in these areas, it allowed them to be placed anywhere where they weren't otherwise prohibited by the ordinance resulting in confusion. Standards would need to be developed for designated parking areas (Sec. 17-85).
4. **Hours of Operation.** To enhance safety, hours of operation prohibit all electric scooters from being ridden or operated from 11 p.m. to 6 a.m. This is the same period of operational restriction as pedal buses (Sec. 17-86(d)).
5. **Underaged Riders.** Require riders under 16 to have written permission from a parent or guardian. This is similar to restrictions that companies place on riders but would be enforceable by the City of Scottsdale (Sec. 17-86(e)).
6. **Device Usage on Sidewalks in Old Town.** Most of the identified problems regarding scooter usage have occurred in Old Town Scottsdale. Most sidewalks in Old Town are not of sufficient width for pedestrians, bicyclists and scooter users. As a result, the draft ordinance requires dismount zones on sidewalks in the Transportation Safety Zone, which includes most of Old Town Scottsdale (Attachment Six). This would result in devices being used in the travel lane on Scottsdale Road, Drinkwater and Goldwater Boulevards even though those streets do not have bike lanes (Sec. 17-86(f)).

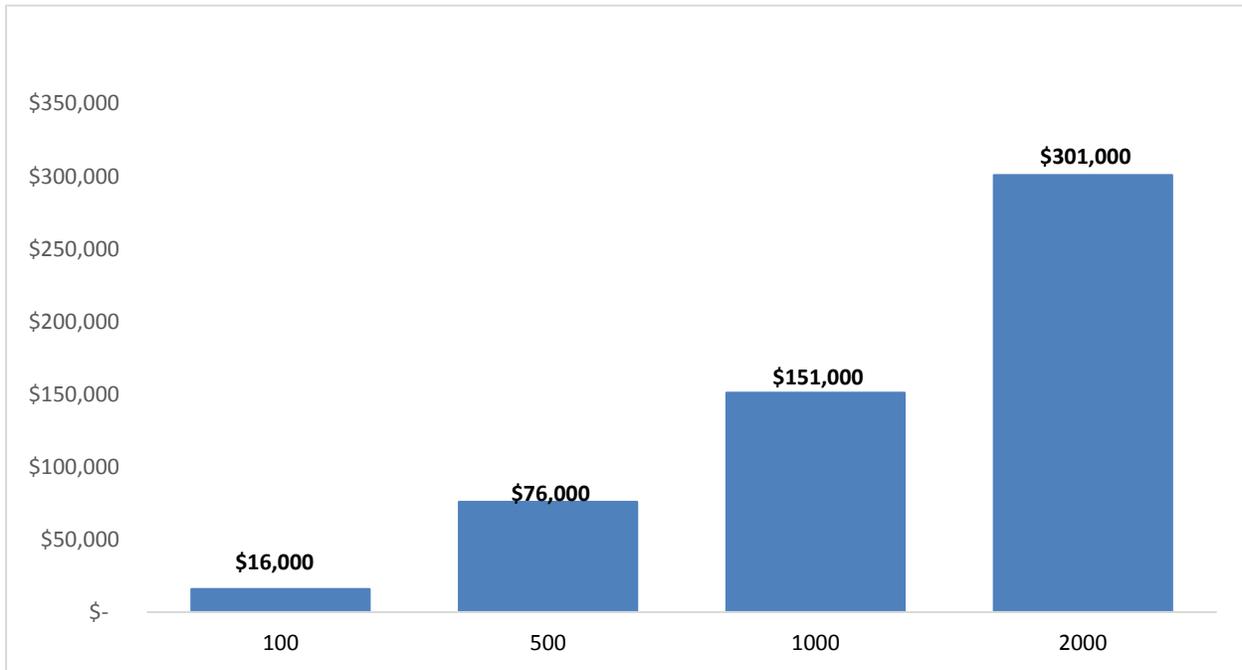
Additional Issues for Future Consideration:

Licensing and Permitting. The city could consider creating a regulatory license for device placement, parking and usage on public property. This license would be similar to the license required for valet parking on public property. This could include charging each company an annual licensing fee (\$1,000/year?) and a non-transferrable annual permit for each device (\$150/year?). Such a regulatory license would require the companies to have insurance and indemnify the city. A Rider Education Plan could also be required for safety education on the operation and parking of devices. Companies could also be required to provide location and usage data to the city. The license would be revocable if companies failed to comply with ordinance or licensing requirements. Along with licensing, additional city staff would be needed for device parking enforcement and administrative costs. This could be funded by fees collected through the license program. An estimated range of potential revenue which could be collected at different levels of device placement in Scottsdale is provided in Table Three below.

Table Three: Proposed Fees

Devices	License Fee	Per Device Fee	Device Fee Total	Total Annual Fees
100	\$1,000	\$150	\$15,000	\$16,000
500	1,000	150	75,000	76,000
1000	1,000	150	150,000	151,000
2000	\$1,000	\$150	\$300,000	\$301,000

Chart 9: Total Annual Estimated Proposed Fees Based on Number of Devices



Alternatively, if the city does not want to license and permit devices, another option would be to prohibit the placement of devices for sharing/rental on public property, allowing them to operate, but only if offered for rental and return on private property, such as a kiosk, at a hotel or at bike rental shops. This is complicated because some riders may want to park temporarily in racks on public property. Finally, the city could ban the devices, but this would also impact privately owned devices.

ATTACHMENTS

1. Information Packet for Device Sharing Companies
2. ScottsdaleEZ Reports
3. Police Summary of Incidents, Citations, and Arrests
4. Draft Ordinance Revisions
5. Transportation Safety Zone Map