

Powered Scooter Share Mid-Pilot Evaluation

Executive Summary

This document provides an evaluation of the San Francisco Municipal Transportation Agency's (SFMTA's) Powered Scooter Share Pilot Program (Pilot) at the mid-point of the 12-month pilot period per the August 28, 2019 Pilot Powered Scooter Share Permit Program Policy Directive.

Powered scooter share offers a new transportation option, particularly for short trips, which could be especially useful as a last-mile solution when paired with public transit. The appeal and convenience of scooter share suggest how it may offer major mode-shift potential to significantly reduce reliance on private automobiles or ride-hail services. The survey of scooter users suggests that up to 40 percent of scooters trips may be replacing trips that would otherwise be made using private automobiles.

When scooters appeared on San Francisco streets in the spring of 2018, public concerns focused on how scooter programs initially negatively impacted safety and accessibility of San Francisco's sidewalks due to illegal sidewalk riding and scooters left in locations that impeded pedestrian access and created tripping hazards.

Based on both potential and observed concerns, along with San Francisco's past experience regulating shared mobility systems, the Board of Supervisors and the SFMTA took steps to regulate scooter services. The resulting legislation authorized the SFMTA to implement a 12-month Pilot Powered Scooter Share Permit Program to address the significant concerns observed during the initial deployment of scooter share programs. The Pilot terms, as established by the SFMTA Board of Directors, authorize the SFMTA to issue permits during the one-year Pilot period, with a maximum total of 1,250 scooters during the first six months and discretion to increase the total up to 2,500 scooters after six months.

Mid-way through the Pilot, the evaluation shows that the permittees have faced challenges, successfully mitigated negative impacts, and improved operations to be in a position to meet growing demand for powered scooter share service. Permittees are complying with the terms and conditions set forth by the SFMTA, and scooters are serving as a valuable last-mile solution. The evaluation also identifies several areas for potential improvement for both the permittees and the program itself. The SFMTA will complete its full evaluation of the Pilot in fall 2019, including recommendations for if and how to permanently permit the operation of electric shared scooters in San Francisco.

This evaluation covers five primary topic areas, based on the Pilot permit terms and conditions as well as San Francisco's Guiding Principles for Emerging Mobility:

- 1. Progress of the Pilot;
- 2. Safety and Accessibility;
- 3. Complaints and Citations;
- 4. Inclusive and Equitable Service; and
- 5. Ridership and Demand.



Summary of Key Findings

- Complaints about sidewalk riding and improper parking were significantly reduced under the Pilot;
- The lock-to design addresses major issues with sidewalk clearance and pedestrian safety.
- While State law no longer requires scooter riders over the age of 18 to wear helmets, the SFMTA
 continues to encourage operator commitment for helmet distribution and rider education are
 beneficial to prevent injuries.
- More robust equity engagement is needed to ensure powered scooter share programs effectively serve historically disadvantaged communities, especially low-income individuals.
- Demand for powered shared scooters is strong, and scooters may reduce private auto use and VMT.
- Powered scooter share systems can serve the public interest when properly regulated.

Recommendations and Next Steps

- Continue monitoring the Pilot. At the midpoint, the Pilot demonstrates strong demand for shared powered scooters in San Francisco. The SFMTA's analysis shows that the Pilot supports Agency policies and goals such as Transit First by providing a first/last mile connection to public transit.
- Promote safety as a top priority. Based on collision and injury analysis, the SFMTA recommends the following additional steps to ensure the safety of electric shared scooter users and non-users alike: continued education and rider accountability aimed at preventing sidewalk riding and associated injuries to non-user pedestrians, increasing access to helmets, and monitoring youth users of shared powered scooters and enforcing permittees age restrictions to ensure injuries to youth do not arise on rented devices. Finally, to encourage accurate reporting, permittees should improve communications to riders regarding the steps to take when involved in a collision.
- Ensure continued progress in areas that need improvement, particularly equity. Low-income plan participation remains low, and more robust equity engagement and multilingual outreach is needed to ensure underrepresented communities can actively participate in the program. The SFMTA will continue to monitor progress on this, as well as other goals and commitments contained in each permittees' application proposals.
- Continue permit compliance monitoring and complete Pilot evaluation. The SFMTA will continue to ensure permit compliance. It will also continue to research and evaluate how system usage changes over time. The SFMTA will also monitor how the recommendations in this evaluation are incorporated for the duration of the Pilot. The Pilot is an opportunity for a thorough evaluation and monitoring of scooter share programs in San Francisco, as well as a chance to examine the experiences of other peer cities' scooter share systems. The SFMTA will evaluate the full Pilot in fall 2019. The final evaluation will include, but not be limited to, the following topics:
 - Understanding safety impacts of scooters and opportunities for infrastructure and noninfrastructure improvements by reviewing collision reports, particularly those involving injury;
 - Assessing the impact of scooter share on the public right-of-way, including maintaining
 accessible pedestrian paths of travel and eliminating sidewalk riding, as well as the
 enforcement/maintenance burden on City staff;

¹ Recent powered scooter guidance from the American College of Emergency Physicians¹ names helmet use as the "easiest and smartest thing you can do to avoid serious head injury."



- Evaluating the use patterns of permitted scooter share systems to identify geographic and/or demographic gaps where scooter share could be promoted;
- Understanding users' choice to travel by scooter share vis a vis other transportation options, in the context of operational needs, to understand the overall impacts to congestion and vehicle miles traveled in San Francisco;
- Assessing the efficacy of rider accountability efforts in reducing the incidences of unsafe riding or parking behavior; and
- Understanding any unforeseen impacts of scooter operations on the communities they serve.



Background and Evaluation Framework

Scooter share systems have expanded rapidly across the United States in the past year. The SFMTA supports innovative solutions that complement the City's transportation network. Scooter share programs have the potential to introduce a new transportation option for short trips and reduce private automobile trips, especially when paired with public transit.

However, when companies deployed scooter share programs in the spring of 2018 in San Francisco, the scooter programs had a negative impact on the safety and accessibility of San Francisco's sidewalks due to illegal sidewalk riding and scooters left in locations that impeded pedestrian access and created tripping hazards.

Based on these concerns and San Francisco's past experience regulating shared mobility systems, the Board of Supervisors and the SFMTA Board of Directors amended Divisions I and II, respectively, of the San Francisco Transportation Code to regulate scooter services. The resulting Transportation Code amendments authorized the SFMTA to implement a 12-month Pilot Powered Scooter Share Permit Program (Pilot) to address the significant concerns observed during the initial deployment of scooter share programs in San Francisco and ensure consistent and effective regulation of scooter share programs.

The Pilot terms, as established by the SFMTA Board of Directors, authorize the SFMTA to issue up to five total permits during the one-year Pilot period, with a maximum total of 1,250 scooters during the first six months, with discretion to increase the total up to 2,500 scooters after six months. For the first six months, the SFMTA chose to issue two permits for 625 scooters each in the interest of promoting geographic equity and allowing the necessary scooter density to serve neighborhoods beyond the downtown core.

Over the 12-month Pilot period, SFMTA is collecting data and public feedback to assess whether further increases to the number of shared scooters is advisable and would serve the public interest. The SFMTA also held a community discussion on April 2nd to gather feedback on the Pilot, with a particular focus on safety, accessibility, equity, outreach, and data. The permit requirements and Pilot program reflect the SFMTA's data-driven approach to better understand how new mobility services impact San Francisco and its communities. This model is similar to approaches the SFMTA has taken in the past, including using pilots and short-term permits to better understand the needs and impacts of new services such as onstreet car sharing, stationless bike sharing and electric moped sharing.

The SFMTA may increase the total number of scooters granted to 2,500 after six months, depending on the results of the mid-Pilot evaluation.



Emerging Mobility Guiding Principles

In July 2017, the San Francisco County Transportation Authority (SFCTA) and the SFMTA adopted the following ten Guiding Principles as a framework for evaluating the benefits and impacts of all emerging mobility services and technologies, such as shared powered scooters, in San Francisco.

- 1. Collaboration
- 2. Safety
- 3. Transit
- 4. Congestion
- 5. Sustainability

- 6. Equitable Access
- 7. Accountability
- 8. Labor
- 9. Disabled Access
- 10. Financial Impact

The SFMTA uses the Guiding Principles as a tool to ensure new services and technologies align with City policies, while minimizing any potentially detrimental impacts on the City's transportation network. Through evaluations such as this one, these principles help the Agency to assess if and how powered scooter share meets City goals. The SFMTA is then able to use its findings to shape future policies, programs, and actions.

This evaluation focuses on six of the Guiding Principles that are particularly relevant to shared scooter services:

- 1. **Safety**: The Pilot must be consistent with the City's goal for achieving Vision Zero and ensuring public safety and security;
- 2. **Disabled Access**: The public right-of-way must be maintained in a way that doesn't allow electric shared scooters to be a nuisance (i.e. blocking paths of travel or cluttering sidewalks);
- 3. **Equitable Access**: Scooters must be made available in disadvantaged communities, and memberships must be affordable to people with low incomes;
- 4. **Collaboration**: Emerging Mobility Services and Technology providers and the City must engage and collaborate with each other and the community to improve the City and its transportation system.
- Labor: Emerging Mobility Services and Technologies should support San Francisco's local hire
 principles, promote equitable job training opportunities, and maximize procurement of goods
 and services from disadvantaged business enterprises.
- 6. **Sustainability**: Permittees must support sustainability, including helping to meet the City's greenhouse gas (GHG) emissions reduction goals, promote use of all non-auto modes, and support efforts to increase the resiliency of the transportation system;
- 7. **Transit**: Powered scooter share must support, rather than compete with, public transit services, and must account for the operational needs of public transit and encourage use of high-occupancy modes; and
- 8. **Accountability**: Under the Pilot, permittees must share relevant data so that the City and the public can effectively evaluate the powered scooter share systems' benefits to and impacts on the transportation system.

The SFMTA reports on a number of performance metrics across each topic area in the "Key Findings to Date" section. Table 1 provides a summary of these metrics and how they related to each topic area and Guiding Principle.



Table 1 – Performance Metrics by Guiding Principle and Topic Area

Topic Area	Related Emerging Mobility Principle(s)	Performance Metrics
1. Progress of the Pilot	Accountability, Collaboration, Equitable Access	Average fleet sizeGeographic availabilityCompliance with device cap
2. Safety and Accessibility	Safety Disabled Access, Safety	Collisions and injuriesHelmet useUser accountabilityLock-to implementation
3. Complaints and Citations	Accountability, Collaboration, Disabled Access, Safety	Rider behavior complaintsParking complaintsParking citations
4. Inclusive and Equitable Service	Equitable Access	 Availability in Communities of Concern/southeastern neighborhoods Usage in Communities of Concern User demographics
	Collaboration, Equitable Access	OutreachLow-income plan participationCommunity meeting summary
5. Ridership and Demand	Accountability, Collaboration Sustainability	Unique usersNumber of trips takenTrips per device per dayTrip duration and length
	Equity, Sustainability, Transit	Trip origins, destinations, and routes Mode choice



Key Findings to Date

The following sections summarize the findings for each of the five key topic areas:

- Progress of the Pilot;
- Safety and Accessibility;
- · Complaints and Citations;
- Inclusive and Equitable Service; and
- Ridership and Demand.

Progress of the Pilot

Each permittee began service under the Pilot on October 15th, 2019, with a maximum fleet size of 625 scooters per company.

Scoot's service area includes South Beach, Mission Bay, Lower Haight, the Mission District, and portions of South of Market, Upper Market & the Castro, Bernal Heights, the Excelsior, Dogpatch, and the Bayview. The current service area—including 2018 Communities of Concern (CoCs)—is shown in Figure 1.

Skip's service area includes Downtown, South of Market, the Tenderloin, Chinatown, North Beach, the Embarcadero and Wharves, Russian Hill, Nob Hill, the Marina, Pacific Heights, Western Addition, Presidio Heights, the Inner Richmond, the Haight, South Beach, Mission Bay, and portions of the Castro & Upper Market, the Mission, Potrero Hill, Dogpatch, the Bayview, Visitacion Valley, and the Excelsior. The current service area—including the southeastern neighborhoods where Skip committed to maintain at least 20% of its fleet—is shown in Figure 2.²

neighborhoods of the City. Based on Skip's proposed service area in their permit application and expanded service area as of March 6 2019, the SFMTA considers the "southeast neighborhoods" to be the following San Francisco Planning Department neighborhoods: Bayview, Excelsior, Visitacion Valley, Outer Mission, and Crocker Amazon. The SFMTA calculates the 20% device availability metric based on this

definition.

² In their applications, each permittee proposed different equity-based metrics for ensuring device availability in underserved communities. Scoot committed to maintaining at least 20% of its fleet in Communities of Concern. Skip committed to maintaining at least 20% of its fleet in southeastern neighborhoods of the City. Based on Skip's proposed service area in their permit application and

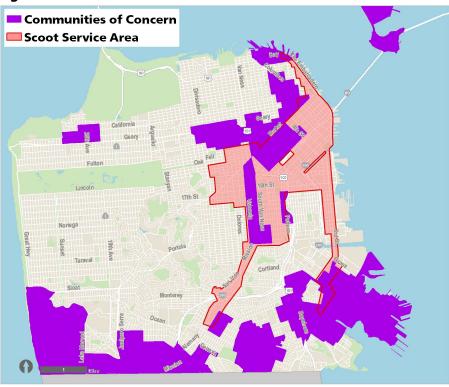
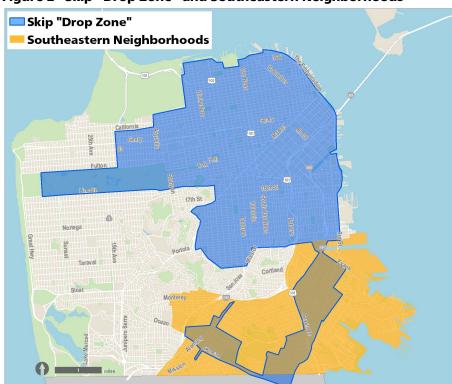


Figure 1 - Scoot Service Area and Communities of Concern





³ Skip's service area is the entirety of San Francisco; the drop zone represents the area where scooters are distributed during deployment and rebalancing.

Scoot and Skip report monthly to the SFMTA on metrics organized around the Emerging Mobility Guiding principles, including safety, disabled access, sustainability, equitable access, accountability, and collaboration. Additionally, the SFMTA's Emerging Mobility Application Programming Interface (API) uses a version of the Mobility Data Specification (MDS) to provide accurate and timely available scooter statistics. This allows the SFMTA to monitor availability in the service area at hourly intervals. The data are accessible to the SFMTA in real time, allowing the Agency to directly monitor permit compliance and evaluate the Pilot. SFMTA staff also meet with permittees on a biweekly basis to address issues as they arise.

Fleet Size and Availability

During the most recent complete month of available data (February 2019), an average of 235 Scoot scooters and 382 Skip scooters were available in San Francisco at 8 AM each day. Scoot has generally deployed lower fleet size numbers compared with Skip for the duration of the Pilot. Under the current terms and conditions of the permit, each permittee may only operate up to 625 scooters throughout the city. The average daily available fleet size at 8 AM for each provider is shown in Figure 3.⁵ Note that as a mode, powered scooter share can be impacted by weather conditions, particularly rainy days, and fleet size fluctuations may reflect this. Additionally, while an 8 AM snapshot is currently useful as a comparison of fleet size across shared mobility operators, as data standards improve, the program may shift to a more comprehensive comparative metric.

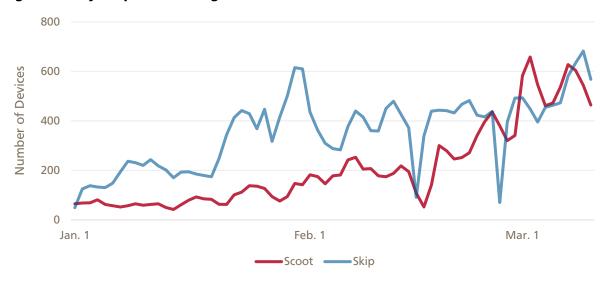


Figure 3- Daily Snapshot - Average Fleet Size at 8 AM

Scooters were generally concentrated in northern and eastern portions of the City, with some exceptions. Figure 4 shows the February average scooter distribution at 8 AM. The highest density of scooters was in

⁴ MDS is a data and API standard that allows cities such as San Francisco to gather data from shared dockless mobility providers such as powered scooter share and stationless bikeshare companies.

⁵ Data are for January 1, 2019 through March 10, 2019 and are based on event data provided by Scoot and Skip to the SFMTA per the SFMTA's Data Requirements for Stationless Emerging Mobility Services. This 8 AM snapshot shows the total on-street devices with a last known event type of available, unavailable, or reserved. The "last known event" is defined as the last event received within 48 hours of the 8 AM snapshot. Devices with no known event beyond 48 hours are excluded from this count.

the Financial District, South of Market, and Mission Bay, with some areas of higher scooter density in outlying areas such as the Excelsior, Bayview, and the Presidio.

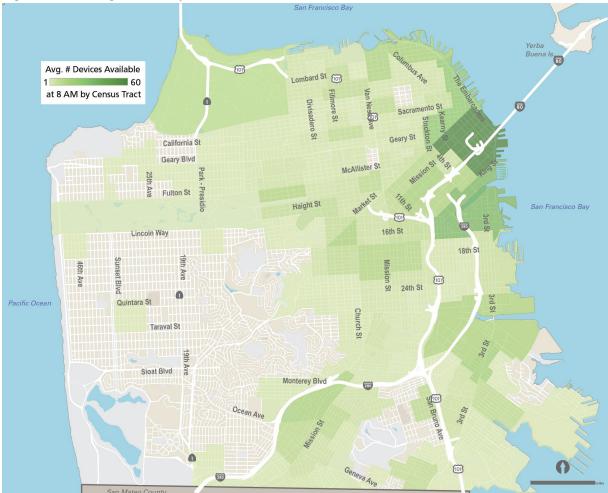


Figure 4 - Average February 8 AM Scooter Distribution

Compliance with Device Cap

Scoot and Skip have generally been in compliance with the maximum device cap of 625 scooters during the most recent three months of available data. Each permittee has exceeded the cap at the 8 AM snapshot only twice during this period, with all occurrences in March.

Safety and Accessibility

Collision and Injury Data

Collisions are self-reported to the SFMTA by each permittee on a monthly basis. In addition to collision reports from companies, both Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG) and San Francisco Police Department (SFPD) data provide further information on the injury impacts of powered scooters in the City (data for those sources only available through 2018), including privately-owned powered scooters. Figure 5 displays monthly counts of traumatic electric-scooter (e-scooter)⁶ injuries treated

⁶ All powered scooters are referred to as "e-scooters" in hospital reporting, including those unaffiliated with the Pilot program.

at ZSFG (green), alongside counts of SFPD reports of collisions involving an e-scooter (blue), and counts of collisions reported by riders and the public to Powered Scooter Pilot Program Companies (orange). Note that ZSFG traumatic injuries represent a subset of injuries treated at the hospital - the more serious ones - and that powered scooter company collision reports did not all involve injuries. 8

JAN-18 FEB-18 MAR-18 APR-18 MAY-18 JUN-18 JUL-18 AUG-18 SEP-18 OCT-18 NOV-18 DEC-18 JAN-19 FEB-19

Powered Scooters Unavailable for Rent

SFPD Injury Collisions
Powered Scooter Company Collision Report to SFMTA

ZSFG Traumatic Injuries

Figure 5 – Reported Powered Scooter Collisions/Injuries⁸

Key Findings

Powered scooter riders involved in collisions and sustaining injuries are predominantly male, adult, and White or Asian according to both SFPD and ZSFG data sources. Of nine people with traumatic injuries treated at ZSFG in 2018, 44% were injured in crashes with motor vehicles, 22% reported wearing a helmet, and one person was struck and injured by an e-scooter while walking. Of 32 e-scooter related injuries reported to SFPD in 2018, 19% were severe, 7% involved wearing a helmet of 13% were injuries to people walking. Across all data sources, reported or documented rider helmet use is low.

Zuckerberg San Francisco General Hospital Trauma Data

ZSFG tracks traumatic injuries associated with various non-traditional vehicle types – including e-scooters. As the only Trauma Center in the City and County of San Francisco, ZSFG treats nearly all patients who sustain traumatic injuries in the City. Notably, this data source reflects only the most serious injuries, and

Note that only collisions reported to the company can be directly associated with the Pilot. Other sources, including SFPD and ZSFG data, do not generally specify whether or not an individual involved in a collision was riding a Scoot or Skip scooter vs. a private scooter, so data should be interpreted accordingly.
Of the 34 collisions reported to permittees (who then report them to SFMTA) during the period of October through February, 18 included an injury.

⁹ Note that these data include both the unpermitted spring 2018 scooter deployment, as well as the first 2.5 months of the Pilot.

¹⁰ This statistic describes 2 out of 28 non-pedestrian injured parties.



not those, for example, of a person riding or hit by an e-scooter who presented to the ZSFG emergency department but did not require trauma team activation or hospitalization.

The group of nine patients who sustained e-scooter related injuries in San Francisco in 2018 had the following characteristics:

- 100% male (N=9)
- Average age 39 years, including three children (aged 17 and younger) injured and one senior (aged 65 and older) who was critically injured ¹¹
- 33% Asian (n=3), 67% White (n=6)
- 66% admitted to hospital (n=6) and 22% critically injured² (n=2), including one pedestrian struck by an e-scooter
- Causes of e-scooter related injury were e-scooter vs. motor vehicle collision (n=4); rider falling from an e-scooter (n=3); collision with a stationary object (n=1); one pedestrian injured by collision with an e-scooter (n=1)
- Six injuries (67%) included involved injury to the head. Injury to the lower body was also prevalent, particularly to knees (n=4, 44%)
- 22% of those injured wore helmets (n=2)

A detailed collision and injury analysis by the Vision Zero SF Injury Prevention Research Collaborative (VZIPR)¹² can be found in Appendix E.

San Francisco Police Department Data

Of a total 31 collision reports referencing e-scooters in all of 2018, all involved injuries to at least one party. Reports of collisions were highest in May 2018, the month corresponding to peak e-scooter concentration in San Francisco. While collision reports dropped after May 2018, there has been a rise in the number of e-scooter related collision reports since the Pilot commenced in mid-October 2018 (compared to the 4.5 months immediately prior). Over 2018, injuries have been reported in people from 12-86 years old, including four children (age 0-17) and three seniors (age 65 and up). Among 32 injured parties, four were pedestrians, and 28 other. Nineteen percent of injuries were reported as severe. Injured pedestrians were older adults (age range 64-86), White or Asian (50% each), and 75% female. A quarter of injuries to pedestrians were described as severe, and 75% as other visible injury. Of those injured while using an e-scooter, two people (7%) reported wearing a helmet.

Self-Reported Data from Powered Scooter Permittees

Due to variations in data collection and reporting methodologies across data sources, only collisions that are reported to the permittees can be directly associated with the Pilot. Scoot did not report any collisions from permit issuance through February 2019. Skip reported 34 collisions during this period. Of those collisions, 18 involved an injury, three of which were severe injuries. The leading collision type reported was motor vehicle vs. powered scooter (44%), followed by powered scooter collisions without a second

¹¹ Critical injury is a subset of traumatic injury reflecting the most severe injuries. This categorization relies upon assessment of an Injury Severity Score by trained medical professionals.

¹² The VZIPR Collaborative is composed of epidemiologists, physicians, and key staff from the San Francisco Department of Public Health (SFDPH) and ZSFG. VZIPR has been working since 2014 to develop, institutionalize, and utilize comprehensive injury data in support of strategic research and analyses for Vision Zero SF, San Francisco's policy and commitment to eliminate traffic deaths on city streets. The methodology developed by this group to track emerging mobility services and technologies– including escooters– is available at:

https://www.sfdph.org/dph/files/EHSdocs/PHES/VisionZero/Emerging_Mobility_Injury_Monitoring_Met hodology.pdf



party (38%) and powered scooter vs. pedestrian collisions (12%). Calculated on a per-mile basis, Skip saw 19 collisions per 100,000 scooter miles traveled and 16 collisions per 100,000 Skip scooter trips. Overall, 12% of Skip riders reporting collisions also reported helmet use.

Helmet Distribution and Use

Prior to January 1, 2019, California law required the use of a helmet when operating a powered scooter. However, Assembly Bill 2989 changed state law such that helmets are no longer required for adult scooter riders. The SFMTA evaluated Pilot applicant proposals pursuant to laws in effect at the time, including a criterion for promoting and distributing helmets to encourage their use. Scoot and Skip both proposed distribution of free helmets upon request or at events. The permittees distributed 1,775 helmets as part of the Pilot. ¹³ While state law has changed, SFMTA continues to encourage helmet use for riders of powered scooters.

User Accountability

Response to complaints

Since the initial unregulated roll-out of scooters in San Francisco, the public has expressed concern regarding individual misbehavior, whether reporting improper parking or sidewalk riding. Each permittee needed to develop robust systems to hold individual users accountable, allowing public complaints to register bad behavior, and imposing appropriate repercussions for users who exhibit repeated violations.

Scoot levies penalties for poor rider behavior including fees for parking citations, safety violations, and service suspension for repeat violations. As of March 18, 2019, Scoot has issued warnings to 80 riders for unsafe riding or parking, fined 12 riders \$300 each for unsafe riding or parking, and suspended 2 users for unsafe riding or parking.

Skip has a policy/process to take action when they positively identify a Rider Code of Conduct violation. While they do have a policy in place, Skip requires a high degree of proof to act on their 3 strike policy, to make sure that they are not limiting access to their platform with inconclusive evidence. With these measures in place, Skip has not deactivated any user accounts to date for Rider Code of Conduct violations. The SFMTA will continue to monitor each company's rider accountability measures to ensure they are adequately meeting the Agency's standards under the Pilot.

Lock-To Implementation

The SFMTA has made the implementation of a locking or tethering mechanism a priority of this Pilot. Based on the experience during the unpermitted pre-Pilot scooter rollout in spring 2018, the SFMTA determined that locking or tethering shared stationless devices—such as powered scooters—to fixed objects is the most practical way to ensure the public pedestrian right-of-way is kept clear of obstacles.

Device locks are now implemented on the entire fleet for both operators. Scoot has deployed an app-controlled integrated locking mechanism on 100% of its fleet. Skip has deployed a non-integrated, non-app controlled combination lock throughout its fleet. Parking complaints and citations have decreased since the introduction of these measures (discussed in more detail in the following Complaints and Citations section).

¹³ 1,243 free helmets were distributed by Skip and 532 helmets were distributed by Scoot as of March 15, 2019.

The two permittees reported 1,719 scooters lost or stolen from October 2018 through February 2019 (453 for Scoot, 1,266 for Skip). Additionally, 374 scooters have been damaged beyond repair and removed from the system (100 for Scoot, 274 for Skip). Scoot has seen a decline in the monthly number of devices stolen since implementation of its integrated locking mechanism. Skip's number of devices stolen remains steady, with an average of 253 scooters stolen per month, and has not seen a notable decrease in this rate since implementing a non-integrated locking solution.

Complaints and Citations

State and local laws impose limitations on parking and riding powered scooters in San Francisco. Parking and riding powered scooters in a manner that impedes pedestrian traffic presents significant challenges for other sidewalk and street users, particularly for older adults or persons with disabilities, such as someone who has low vision or is blind, or who or uses a cane, walker or wheelchair. Appendix 1 of the Powered Scooter Share Program Terms and Conditions provides guidance to help permittees meet their obligations under the law and ensure that scooters do not reduce the safety and accessibility of San Francisco sidewalks.

Between October 15, 2018 and February 28, 2019, the SFMTA received 624 complaints of improperly parked scooters blocking the public right of way. The SFMTA received an additional 69 complaints regarding improper riding by powered scooters during this period. Complaints were primarily channeled through 311, with the remainder received by email. This compares with the nearly 2,000 complaints received by the SFMTA during a two month period in spring 2018. Complaints are shown in Figure 6. 14

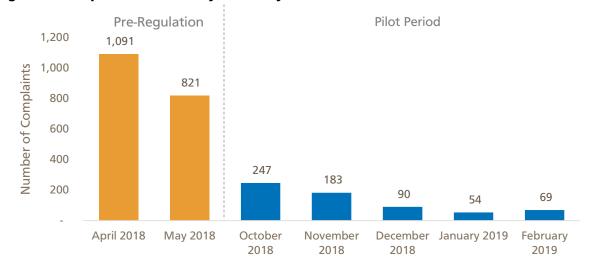


Figure 6 - Complaints Received by SFMTA by Month¹⁴

On-street enforcement of the parking guidelines is conducted by investigators who respond directly to 311 complaints while in the field and issue citations for improperly parked powered scooters. In addition to responding directly to complaints, investigators also cite any improperly parker powered scooters that they witness while conducting other duties in the field. A total of 166 citations for improper parking were issued to both Skip and Scoot through February 28, 2019, with 39 issued to Scoot and 127 issued to Skip. During the first quarter of the Pilot, Scoot and Skip both developed "lock-to" solutions on their devices. The companies encourage riders to lock devices to bike racks and specifically instruct customers not to

¹⁴ Complaints may also include privately-owned powered scooters.

park scooters next to curb cuts, in pedestrian pathways, or immediately adjacent to accessible parking spaces. The lock-to solutions have reduced the frequency of improper parking. A decline in the number of issued citations for improper parking starting in December 2018 roughly corresponds with the introduction of the lock-to solution in both fleets, as shown in Figure 7.

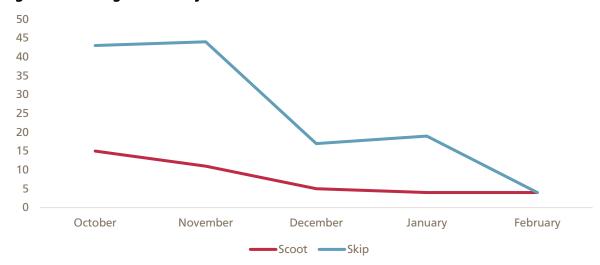


Figure 7 - Parking Citations by Month

Inclusive and Equitable Service

Communities of Concern

Each powered scooter share permittee committed to specific equity targets for device distribution in their applications. Scoot committed to making at least 20% of their fleet available in Communities of Concern at any given time, while Skip committed to maintaining 20% of their fleet in southeast portions of the City. Scoot's service area and Communities of Concern (CoC) are shown in Figure 1. The SFMTA defines Skip's southeast zones to include Bayview, Excelsior, Visitacion Valley, Outer Mission, and Crocker Amazon, as shown with Skip's service area in Figure 2.

Availability in Communities of Concern

During the most recent month of available data (February 2019), Scoot had an average of 35.6% of its fleet deployed in Communities of Concern at 8 a.m. each day, while Skip had an average of 31.1% of its fleet deployed in Communities of Concern. Neither permittee dropped below the 20% CoC threshold during the February 8 a.m. snapshot.

Availability in Southeastern Neighborhoods

During the most recent month of available data (February 2019), Skip had an average of 21% of its fleet deployed in southeastern neighborhoods of the City at 8 a.m. each day, with a maximum of 34% and a minimum of 13%. Skip failed to meet its 20% commitment of deployment in southeastern neighborhoods 12 out of the 28 days that month, with a mean availability in this area of 16% on those 12 days.

¹⁵ Skip is not required to meet a minimum percentage of its fleet in Communities of Concern based on its application. Data are shown for comparison purposes only.

Usage in Communities of Concern

From December 1, 2018 through March 2, 2019, 63,462 trips began or ended in Communities of Concern, representing 52% of all trips made during this period. 19,568 trips (16%) started *and* ended in a Community of Concern.

User Demographics

Under the terms and conditions of the Powered Scooter Share permit, permittees are required to administer two user surveys within the permit year, using questions provided by the SFMTA. The first user survey was distributed from January 7 through February 5, 2019 and was available in English, Spanish, Chinese, and Tagalog. The survey included questions regarding travel behavior and mode shift. Full details on the User Survey questions and results can be found in Appendix A. ¹⁶

The user survey results provided a number of insights into the demographics of scooter users. Most survey respondents were male (81%) compared to female (17%) or another gender (1%). ¹⁷ Male survey respondents generally report using shared powered scooters more frequently than female respondents. Males were nearly twice as likely to ride daily and a sixth more likely to ride weekly as compared to female respondents, as shown in Figure 8.

Because the user survey was distributed via email on an opt-in basis, respondents self-selected and data and findings should be interpreted with appropriate caveats compared with random sampling. Since the survey is not a simple random sample, survey results are subject to selection bias. Furthermore, because a survey respondent could use either scooter service, there is no guarantee that respondents are not double counted between surveys. More research is needed to confirm whether results accurately reflect reality.

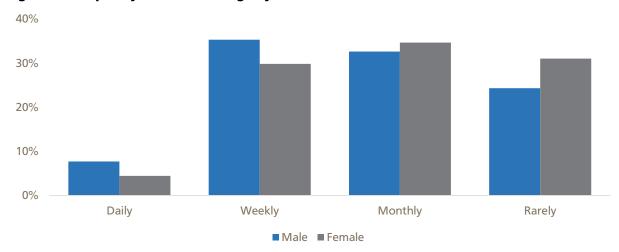


Figure 8 - Frequency of Scooter Usage by Gender

The majority (61%) of survey respondents were White, while 16% were Asian or Pacific Islanders. 11% of respondents identified as other and/or mixed, 7% as Hispanic/Latino, and 2% as Black or African American. 18 This compares with the demographics of San Francisco as a whole – 41% White, 34% Asian or Pacific Islander, 15% Hispanic/Latino, 5% Black or African American, and 4% other and/or mixed.

¹⁶ The SFMTA will require permittees to distribute an additional survey during the second half of the Pilot. This survey may be structured or administered differently.

¹⁷ 1% of respondents selected "another gender"; separately, 1% of respondents left this guestion blank.

¹⁸ Note: for this question, users were able to select more than one response. 3% left this question blank.

Additionally, powered scooter share users in San Francisco generally skew younger. Half of all survey respondents were between the ages of 25 and 34, while 23% of San Francisco residents fall within this age range ¹⁹

88% of survey respondents lived in the greater Bay Area, while around two-thirds lived in San Francisco proper. A map of survey respondent density by home ZIP code is shown in Figure 9. Full details on the User Survey questions and results can be found in Appendix A.

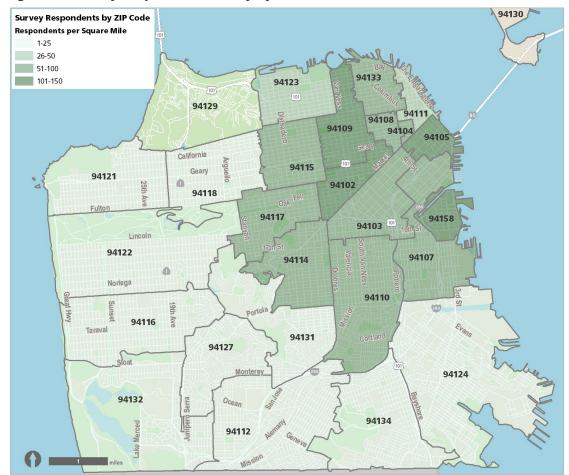


Figure 9 - Survey Respondent Density by Home ZIP Code

Outreach

Under the Pilot, the SFMTA requires a robust community engagement plan. Scoot and Skip have each completed a number of outreach activities since being awarded permits to operate in San Francisco, meeting with various community groups and elected officials, as well as attending and hosting events.

Scoot met with many members of the Board of Supervisors, various City departments, merchants associations, Community Benefit Organizations, neighborhood associations, and safer streets advocacy organizations. Scoot also held 12 safety trainings as of February 2019.

¹⁹ San Francisco demographic data are from the Census Bureau's American Community Survey 5-year estimates from 2013-2017.



Skip met with all members of the Board of Supervisors, as well as a number of merchants associations, Community Benefits Districts, Community Benefit Organizations, neighborhood groups, safer streets advocacy organizations, and political groups. Skip also participated in a number of community events such as Sunday Streets, and held 21 safety trainings as of February 2019.

Despite the outreach activities completed to date, shared powered scooters have not been embraced by all of San Francisco's diverse communities, particularly with respect to age, gender, income level, and race. More targeted programmatic outreach is needed to encourage adoption in in these underrepresented groups, for whom shared stationless mobility options could have the largest impact.

The SFMTA solicited outreach summaries from each permittee, specifically highlighting successes and challenges. Their descriptions show the need for additional work in this area and a more strategic approach.

Scoot Outreach Successes and Challenges

Scoot reports that its outreach and partnership efforts have been successful in that dialogues were open, respectful, and productive. Most organizations expressed support for the service and welcomed forming partnerships.

Scoot reports some challenges including complaints about distribution. Some communities asked for more availability, while others wanted to be excluded from the service area. Scoot has also felt some communities did not prioritize a collaborative partnership, but is hopeful that groups will have more capacity to form working relationships in the future. Overall, they experienced a low number of signups for the low-income Community Plan, and further efforts will address this disparity to ensure awareness, and to identify any other barriers towards adoption.

Skip Outreach Successes and Challenges

Since receiving a permit, Skip reports efforts to build relationships with community groups, addressed concerns from the initial unregulated scooter roll-out, and worked to repair public trust with scooter operators as a whole.

Skip reports reaching out to community groups, through in person meetings, and a series of popup events and safety trainings, designed to reach the broader public. In some neighborhoods, Skip employees walked merchant corridors to directly engage feedback and to answer questions. Skip reports it has continued to foster a positive relationship with bike and walk advocacy to grow a coalition for safer streets, with scooter riders, bicyclists, and pedestrians, joining in demonstrations like People Protected Bike Lanes.

Some of Skip's reported challenges include a stalled attempt to implement a community design effort for Skip scooter footboards.

Low-Income Plans

The SFMTA requires that Scoot and Skip each offer a discounted low-income plan for users who qualify for various government assistance programs. Scoot offers their "Community Plan" to anyone with an EBT card, discounted utility bill or any other state or federally-run assistance program document, as well as members of several pre-approved community-based organizations (CBOs). Skip also offers a low-income



plan called the "Rider Assistance Program" to anyone with qualifying Cal Fresh, MUNI lifeline, PG&E CARE, or Golden State Advantage participation. Both plans offer a 50% discount on rides.

Low income plan participation is very low—there were 68 participants in Scoot's Community Plan, and 75 participants in Skip's Rider Assistance Program as of February 2019—even though 9% of users are low-income. ²⁰ Usage by low-income plan members is also low. 120 trips had been facilitated by Scoot's low-income plan and 671 by Skip's plan from Pilot launch through February 2019. Trips made by low-income plan participants represented .5% of all Scoot trips and .3% of all Skip trips during this period.

Community Meeting

The SFMTA held a community discussion on April 2, 2019 to gather feedback on the Pilot, with a particular focus on safety, accessibility, equity, outreach, and data. More than 50 members of the public shared their thoughts on successes and areas for improvement for both the program and for individual operators. The feedback received included:

- Safety: Participants underscored the importance of safe riding and parking of scooters, and had a number of ideas about how to improve safety for riders and non-riders alike. Improvements to rider accountability and education were both stressed. With respect to rider accountability, many attendees felt that permittees could do more to ensure that riders operate scooters safely, either through incentives, penalties, or suspension of accounts. On the topic of education, some articulated that the permittees could better educate their riders about the rules of the road, especially visitors who may not be familiar with local laws, and that rider education should include more nuance about navigating different neighborhoods and transportation infrastructure in San Francisco. However, most participants stressed that incidences of sidewalk riding were less numerous than during the unpermitted rollout of spring 2018. Some in attendance thought that the permittees should better educate riders and the public on how to report a collision to the companies. Finally, many stressed the need for more extensive and higher quality biking infrastructure, such as separated biked lanes and bike racks.
- Accessibility: Those in attendance felt that implementation of the locking mechanism by both permittees had noticeably improved parking behavior and reduced incidences of scooters blocking the accessible path of travel. Participants were asked to compare their observations of parking behavior both before and after the implementation of locking mechanisms, with most rating that behavior was "better" or "much better" after lock-to had been deployed, and a majority indicating that scooters should be required to include a lock moving forward.
- Equity: Participants felt that many in their communities did not know about scooters or think scooters were for them, and that the permittees should promote their programs more widely in these communities, especially Communities of Concern. Additionally, some were unaware that companies had a low-income plan or how to qualify, underscoring the need for additional promotion of low-income plans. With respect to device distribution, many in attendance expressed a preference for additional scooters in more neighborhoods and felt that the current fleet sizes were insufficient to adequately serve demand.
- **Outreach:** Attendees expressed a wide array of feedback on outreach, with some noting high levels of outreach in certain neighborhoods, with others stressing the need for improved and more extensive outreach. In particular some participants indicated that permittees could

²⁰ Figure based on a comparison of survey respondent household income levels with Muni Lifeline Program income limits, household income, and household size. .3% of Scoot users and .1% of Skip users are low-income plan participants.

- undertake better multi-lingual outreach to reach a broader set of stakeholders, including in languages beyond Spanish and Chinese.
- Data: Participants were eager to gain access to the data that the SFMTA receives from both
 permittees through both the Emerging Mobility API and other sources such as the complaints and
 citations database. The SFMTA plans to implement a public-facing dashboard by May 2019 with
 snapshots of various metrics such as trips per device per day, origins and destinations by Census
 Tract, and scooter availability by neighborhood.

The SFMTA will duly consider the feedback gathered at this meeting in program decisions for the remainder of the Pilot, as well as for any future permit program after the current Pilot expires.

Ridership and Demand

Unique Users

Scoot identified 22,985 unique users in San Francisco as of February 2019, while Skip identified 72,448. The number of users is defined as the total number of unique accounts.

Demand

Users have taken 242,398 trips on shared scooters since the Pilot launched in October 2018 through February 2019. Scoot users took 24,295 trips and Skip users took 218,103 trips during this time period. The number of trips was higher in the months of October and November before dropping by roughly half in the winter months, likely due to a high frequency of rainy days during these months. However, Scoot saw an increase in the number of trips per month in February, likely due to an increase of its fleet size compared with prior months. The number of trips per month taken on each service is shown in Figure 10.

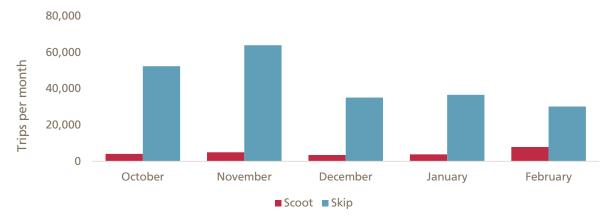


Figure 10 - Total Trips per Month

During the most recent month of complete data (February 2019), Scoot saw an average of 303 trips per day, while Skip saw 1,054 trips per day.

Trips per Device

During the most recent month of available data, Scoot and Skip both saw an average of between two and three trips per device per day, as shown in Figure 11. This number was lower compared with earlier in the Pilot, likely due to inclement weather during the month of February.

²¹ Skip does not operate its service on days when the weather.com forecast shows a 40% or greater chance of precipitation.

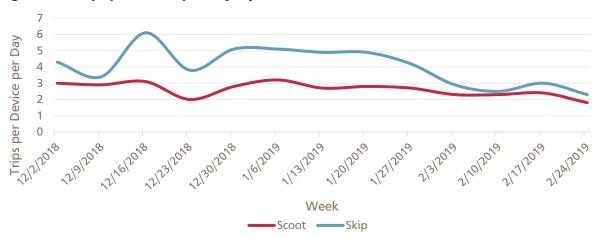


Figure 11 – Trips per Device per Day, by Week²²

Trip Duration and Length

The mean trip on a shared powered scooter was 20 minutes in duration and just under 1 mile in length. The median trip was nine minutes in duration and .7 miles in length. The distributions of trip durations and lengths are shown in Figure 12 and Figure 13.

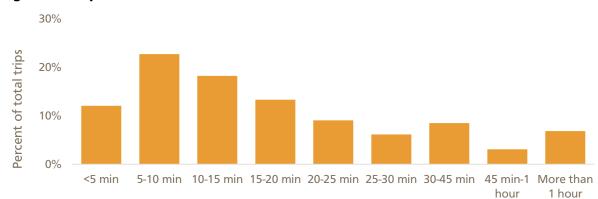
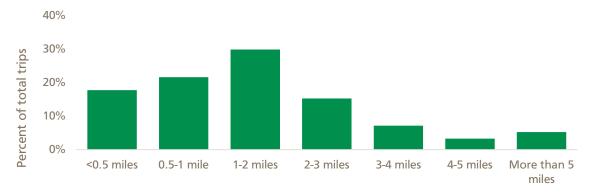


Figure 12 - Trip Duration²³





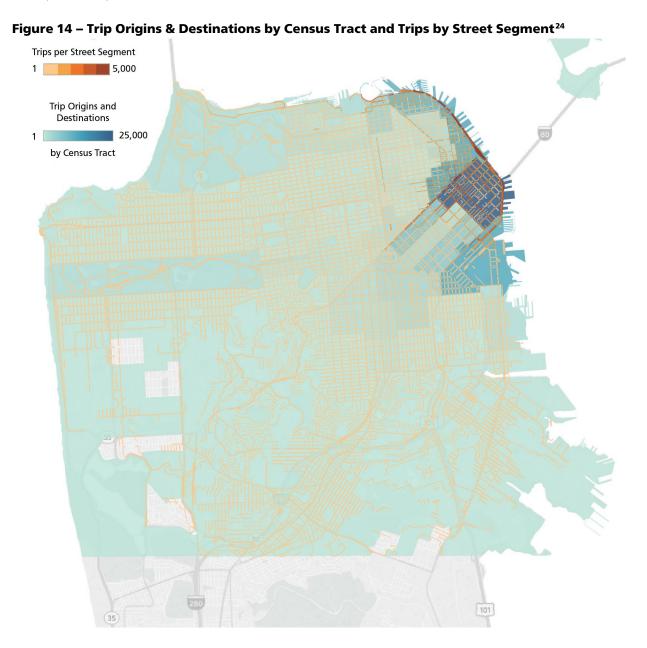
²² This metric represents the total number of trips divided by the total revenue hours per device. Revenue hour is defined as the total time a device was in a state of 'reserved' or 'available' per the events sent to SFMTA according to the SFMTA Data Sharing Requirements for Stationless Emerging Mobility Services ²³ Note: trip duration and length data are for 10/15/2018 through 3/2/2019.



Trip Origins, Destinations, and Routes

Trip origins and destinations were generally concentrated in the northeastern part of the City, primarily the Financial District, Fisherman's Wharf, South of Market, Rincon Hill, South Beach, and Mission Bay, as shown in Figure 14 and Figure 15.

Users took the greatest number of trips in the northern and eastern two-thirds of the City, as shown in Figure 14 and Figure 15. The most commonly utilized routes include the Embarcadero, Market Street, 2nd Street, 3rd Street, and Townsend Street.



²⁴ Trip origin and destination data are from November 20, 2018 to March 5, 2019. Trip longitude and latitude data are from November 20, 2018 to March 5, 2019.



Figure 15 - Origins & Destinations by Census Tract and Trips by Street Segment (Downtown)²⁵

Mode Choice

The SFMTA's analysis of survey results yielded several interesting findings related to mode shift that are consistent with the Agency's goal of making sustainable modes of transportation the most attractive and preferred means of travel. 42 percent of all scooter user survey respondents indicated that they would have taken an automobile mode on their last trip had a scooter not been available, as shown in Figure 16. The vast majority of those users would have taken ride-hailing Uber or Lyft (36 out of 42 percentage points).

²⁵ Trip origin and destination data are from November 20, 2018 to March 5, 2019. Trip longitude and latitude data are from November 20, 2018 to March 5, 2019.

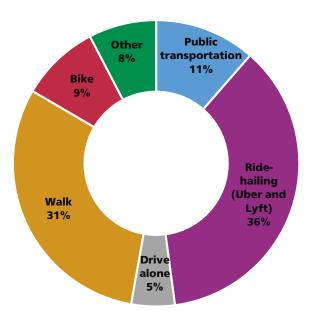
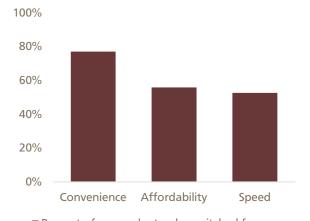


Figure 16 - Mode Choice Had Scooter Not Been Available

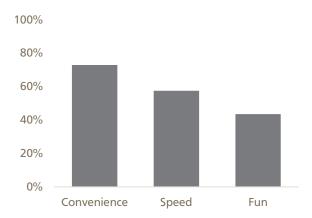
The top three reasons for shifting to a scooter away from an automobile mode were convenience, affordability, and speed, as shown in Figure 17. The top three reasons for shifting to a scooter from a non-automobile mode were convenience, speed, and fun, as shown in Figure 18.

Figure 17 - Top 3 Reasons for Switching from Auto Mode to Scooter



■ Percent of respondents who switched from an auto mode (n=639)

Figure 18 - Top 3 Reasons for Switching from Non-Auto Mode to Scooter



■ Percent of respondents who switched from a non-auto mode (n=872)

Connections with Transit

On their last trip, 34% of survey respondents used the service to get to or from public transportation. Nearly 28% of respondents would not have taken transit if a scooter was not available, but used the service to connect to transit. 7% of respondents would have taken transit had a scooter not been available, and did not use the service to connect to transit. On their own, these data show that scooters induce transit trips at roughly 4 times the rate that they replace transit trips, indicating that they could complement transit by serving as a valuable last mile connection.



Evaluation Report Card

Each permittee's performance at the mid-point of the Pilot is summarized, by Guiding Principle, in Figure 19. The rationale behind each rating can be found following the table.

Figure 19 - Evaluation Report Card

	-	Scoot	Skip
Safety	Permittees' operations must be consistent with the City's goal for achieving Vision Zero and ensuring public safety and security. State law establishes legal requirements to ensure the safe use of electric scooters in the public right-of-way, and the following complaints received during the unpermitted deployment of Scooters in spring 2018 should be directly addressed by permittees: illegal and unsafe riding on the sidewalk, unsafe riding without a helmet, use by minors including illegal use of scooters by individuals without a driver's license, and illegally riding a scooter with a passenger.	F	F
Disabled Access	California Vehicle Code Section 21235 prohibits motorized scooters and other objects from blocking pedestrian paths on the sidewalk, and Section 63 of the San Francisco Police Code generally prohibits the obstruction of sidewalks. Strategies to ensure properly parked scooters, including locking or tethering, should result in parking that does not block the right of way.	S	S
Equitable Access	Permittees' approach to providing service to low-income residents, including diverse payment options and fare discounts, should reduce barriers to participation. Permittees' programs must be available to all, including groups who have historically lacked access to mobility benefits. Service must be available in diverse geographic areas and that service is available to low-income residents through discount programs and varied payment options.	Р	Р
Collaboration/ Outreach	Permittees must undertake robust community outreach to ensure that any scooter services reflect community feedback and target a diverse set of users. Outreach approaches must include strategies to ensure that low income residents are aware of service and how to participate.	F	F
Labor	Permittees must ensure service reliability by understanding operational needs and adjusting resources as necessary. Scooter share operators should support San Francisco's local hire principles, and promote equitable job training opportunities. A trained and motivated workforce is necessary to ensure the safe and reliable operation of scooter share services.	S	F
Sustainability	Permittees must support sustainability, including helping to meet the City's greenhouse gas (GHG) emissions reduction goals, promote use of all non-auto modes, and support efforts to increase the resiliency of the transportation system. Approaches to operations and disposal should demonstrate commitment to environmental sustainability.	S	F
Transit	Permittees must support, rather than compete with public transit services, and must account for the operational needs of public transit and encourage use of high-occupancy modes	S	S
Accountability/ Compliance	Permittees must share relevant data so that the City and the public can effectively evaluate the powered scooter share systems' benefits to and impacts on the transportation system. Permittees must also comply with all terms of the scooter share permit.	S	F
Rating Definitions	STRONG ratings were given in areas where permittees performed particularly well. Per ratings substantially exceeded the minimum program requirements as spelled out in the tions and/or communicated by the SFMTA. FAIR ratings were given in areas where permittees performed adequately but unexcept demonstrates a moderate level of commitment and ability to solving known challenges meeting or somewhat exceeding the minimum program requirements as spelled out in Conditions and/or communicated by the SFMTA. POOR ratings were given to permittees whose performance in a given area requires sig improvement for the remainder of the Pilot. Permittees were given a poor rating for der el of commitment and ability to solving known challenges and concerns. Failing to meet program requirements as spelled out in the permit Terms & Conditions and/or communialso resulted in a poor rating.	e permit Terms ionally. A fair r and concerns, the permit Ter nificant attent nonstrating a l t the bare mini	s & Condi- rating and ms & ion and ow lev- mum



Safety

Company-reported collision rates have generally been low on a per-trip and per-VMT basis, and absolute numbers of injuries have decreased compared with the unpermitted scooter deployment of spring 2018. However, injury trends should continue to be closely monitored, especially as additional trauma data become available. Helmet use remains a significant area for improvement—only 12% of users who reported a collision to either operator indicated they were wearing a helmet. Permittees must continue to stress the importance of wearing helmets despite changes to State law, and Scoot in particular should continue to investigate the feasibility of including a helmet with every rental as proposed in their application. Because powered shared scooters also represent a new transportation mode that requires physical dexterity and raises safety concerns, robust rider education is especially important. Additionally, to encourage accurate reporting, permittees should improve communications toward riders regarding the steps to take when involved in a collision. Finally, Skip must implement improved rider accountability measures to ensure that complaints about unsafe rider behavior such as sidewalk riding are adequately addressed. Given reported injuries to people walking, additional education on where it is legal to ride is important to emphasize moving forward.

Disabled Access

Both permittees followed through on their proposals to introduce a locking mechanism, and 100% of both fleets had locking capabilities by February 2019. This has led to a significant drop in complaints of blocked sidewalks and citations for improper parking.

Equitable Access

Low-income plan participation remains very low, and more robust equity engagement is needed to ensure powered scooter share programs effectively serve historically disadvantaged communities, especially low-income individuals. While both companies have maintained at least 20% of their fleets in Communities of Concern, Skip must continue to ensure that its equitable access goal of maintaining 20% of its fleet in southeastern San Francisco is consistently achieved daily. Scoot deployed a fleet size much smaller than the permitted 625 during the first four months of the Pilot, with commensurate low ridership numbers. Scoot must work to deploy an adequate fleet to service their entire service area, including Communities of Concern. Finally, both permittees should work to ensure that scooters are available and utilized beyond the downtown core.

Collaboration/Outreach

Emerging Mobility Services and Technology providers and the City must engage and collaborate with each other and the community to improve the City and its transportation system. Both companies have demonstrated a commitment to working with the SFMTA to meet this goal, and have demonstrated general compliance with the Agency's community engagement expectations and guidelines. However, continued outreach is necessary to ensure that underrepresented communities are aware of these services and how to participate, including additional outreach in languages such as Spanish, Chinese, and Filipino.

Scoot has followed through on their outreach commitments and generally had success building partnerships in Communities of Concern such as the Bayview. Additionally, Scoot's engagement strategy includes understanding the needs of diverse communities, including those who choose not to use scooter services. However, usage by historically underserved communities remains low.



Skip has cultivated relationships with bike and walk advocacy groups, and developed partnerships with some Community Benefit Organizations. However, Skip's outreach in areas such as the Bayview and Excelsior has not resulted in increased adoption and usage in these areas.

Continued outreach is necessary by both permittees to identify and address barriers towards adoption in San Francisco's diverse communities, particularly with respect to age, gender, income level, and race.

Labor

Permittees should support San Francisco's local hire principles, promote equitable job training opportunities, and maximize procurement of goods and services from disadvantaged business enterprises. Scoot in particular has focused on hiring local and pays its operations staff—100% of which are company employees—a living wage. Skip has exceeded its goal of making 15% of chargers W-2 employees. However, Skip has not yet fostered the creation of an independent businesses pipeline for contractors as proposed, and some members of the public have expressed concerns about the independent contractor business model.

Sustainability

Scoot has demonstrated a commitment to sustainable operations through its moped/electric vehicle-based recharging and tracking/reporting of VMT associated with charging and rebalancing. While Skip has reported non-revenue VMT for company-owned vehicles, Skip's reluctance to track Vehicle Miles Traveled associated with independent contractor rebalancing makes it difficult for the SFMTA to evaluate the full environmental and congestion impacts of its service.

Neither Scoot nor Skip has disposed of batteries to date.

Transit

Powered scooter share must support, rather than compete with, public transit services. Results from the user survey are encouraging—34% of survey respondents used the service to get to or from public transportation, and nearly 28% of respondents would not have taken transit if a scooter was not available, but used the service to connect to transit. Responses were similar for both permittees; these data indicate that scooters generally complement transit by serving as a valuable last mile connection.

Accountability/Compliance

Scoot and Skip are both compliant with the terms and conditions of the permit at the Pilot's midpoint. Both permittees have submitted monthly reports in a timely manner. Additionally, each operator has demonstrated a good faith effort toward implementing SFMTA's Emerging Mobility API. While both companies have not fully implemented all application proposals, Skip has significant progress to make towards realizing their proposals. The SFMTA will continue to monitor each permittee for the remainder of the Pilot.

3 Month Compliance Reports

The Powered Scooter Share Permit Terms and Conditions require permittees to provide compliance reports to the SFMTA at 3 months from permit issuance documenting the permittee's implementation of the plans proposed in their application. SFMTA staff compiled a list of proposals from each permittee's application and asked the permittees to provide updates.



Companies were generally in compliance with proposals submitted in their applications. Exceptions include the following:

- Scoot:
 - Scoot proposed installing onboard helmet boxes in their application. Scoot continues to look at options for including a helmet on the vehicle, however there is no plan to roll out a scooter with helmet box attached in the near future.
 - Scoot has not yet created a frequent rider plan for kick scooters similar to the plan available for their moped program.
- Skip:
- o Skip is still in talks with CashStar about forming a partnership to facilitate cash payments.
- o Skip's creation of a Community Advisory Board is still in progress.

A complete copy of each permittee's 3 Month Compliance Reports can be found in Appendix C.