TNCs and Disabled Access

San Francisco Municipal Transportation Agency

Taxis and Accessible Services Division

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SFMTA

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San Francisco Municipal Transportation Agency

Edward D. Reiskin, Director of Transportation

Kate Toran, Director of Taxis and Accessible Services Division

Annette Williams, Manager of Accessible Services

Erin McAuliff, Senior Planner, Accessibility Policy

Jonathan Cheng, Senior Paratransit Planner

Abigail Brown, Accessible Services Planner Trainee

Darton Ito, Deputy Director for Innovation

John Knox White, Program Manager

Jadie Wasilco, Senior Legislative Analyst

Mona Chiu, Regulated Mobility Administrative Analyst

Kristen Mazur, Former Senior Accessibility Planner

San Francisco County Transportation Authority

Tilly Chang, Executive Director

Joe Castiglione, Deputy Director of Technology, Data, and Analysis

Warren Logan, Senior Planner

San Francisco Planning Department

Kay Cheng, Senior Planner

Tam Tran, Senior Planner

San Francisco Mayor's Office on Disability

Nicole Bohn, Director

Joanna Fraguli, Deputy Director of Programmatic Access

Executive Summary

Since 2013, ride-hail companies, also known as Transportation Network Companies or TNCs, have become an increasingly visible presence on San Francisco streets. However, for approximately 90,000 San Francisco residents with disabilities, as well as disabled commuters and visitors to our city, TNCs may not be an option some or all of the time. The experience of disabled riders depends on the commitment and ability of TNCs to provide services that meet a range of access and functional needs. Some individuals, including those who are blind or low vision, have reported increased mobility and independence with the advent of TNCs. Others, such as wheelchair users, have largely been unable to use the service and have experienced a corresponding decline in availability of on-demand accessible services they previously relied upon.

The San Francisco Municipal Transportation Agency (SFMTA) and the City of San Francisco believe in a transportation system that serves everyone, and SFMTA has a longstanding commitment to providing accessible transportation options for older adults and people with disabilities. Since 1978, long before paratransit was required by the Americans with Disabilities Act in 1990, the SFMTA has operated a paratransit program for people unable to use Muni, the City's public transportation system. SFMTA has also made long-term investments in the accessibility of the Muni fixed route system, the local taxi cab industry, and our local streets and sidewalks. Representatives from the disability community have guided the direction of these services for just as long, in well-established consumer councils, such as the San Francisco Paratransit Coordinating Council and the SFMTA Multimodal Accessibility Advisory Committee.

This report identifies the opportunities and barriers that TNCs present for people with disabilities in San Francisco, how their presence impacts equal access to

all modes of transportation in the City, and explores how peer transportation agencies in other cities are interacting with TNCs to try and improve access.

Impact of TNCs on the transportation network

SFMTA is responsible for managing the surface transportation network of San Francisco, although it does not have direct regulatory authority over TNCs. Emerging mobility services are changing the way people with disabilities move around the City, both directly and indirectly. For example, TNC operations exhibit several roadway conflicts that pose considerable safety risks for older adults and persons with disabilities, who are at higher risk of death from traffic-related injuries. TNCs also contribute to an increase in vehicle miles travelled. Greater vehicle miles traveled on San Francisco streets increase the risk of collisions with older adults and people with disabilities, and also contribute to congestion that slows down modes that people with disabilities rely on for independent travel through the City, including public transit, taxi service, and paratransit. Finally, San Francisco is among a number of markets that experienced a decline in taxi service, particularly in wheelchair accessible ramp taxis, since TNCs began operations. Despite this reduction in availability and shift in the general population towards using TNCs, people with disabilities are still more reliant on taxicabs than the general public.

TNC service opportunities and barriers

Transportation Network Companies have articulated visions and values that inherently include access for all. Uber's first core value is, "We do the right thing, period." and Lyft says they "see the future as community-driven – and it starts with you." In some ways, these two companies are living up to these ideals. For example, TNCs have provided an unprecedented level of access to on-demand transportation for people with visual disabilities; employment for deaf and hard of hearing individuals as drivers; and more timely access to healthcare for some riders who do not require wheelchair accessible service.

On the other hand, many of the benefits that have attracted users to TNCs, such as quick response time, cheaper fares, and ease of payment, have not been afforded equally to all riders with disabilities. Pilots to introduce wheelchair accessible TNC service are sparse, and information on their progress is limited or unavailable; TNCs provide limited training and guidance to provide assistance to persons with a variety of disabilities; and healthcare transportation partnerships with TNCs do not appear to include any meaningful equivalent service for riders who require wheelchair accessible transportation.

Looking towards the future, efforts to adjust policy across the nation to address the changing landscape of transportation may provide models for how TNCs can successfully provide services that promote and provide disabled access. If successful, policy intervention would provide the opportunity for public-private partnerships, and provide clear accessibility standards to allow for collaboration in the public interest. Additionally, the imminent introduction of autonomous vehicles on TNC platforms, without a focus on physical accessibility and access to these vehicles, may mirror the largely inaccessible TNC reality of today.

Regulation and enforcement For TNCs to meet the SFMTA's goals of equity, accessibility and affordability, they must be inclusive of all persons with disabilities. The SFMTA lacks direct regulatory oversight of TNCs, though, which has prevented the SFMTA from ensuring that those who require accessible vehicles, physical access points, services, and technologies receive the same or comparable level of access as persons without disabilities.

Since establishing oversight of TNCs in 2013, the California Public Utilities Commission (CPUC) has promulgated only a few regulations and minimal oversight to ensure equal access for passengers with disabilities. New legislation, effective January 1, 2019, known as Senate Bill 1376: The TNC Access for All Act (Hill), provides the CPUC with the mandate to improve access to TNC service for wheelchair users and others with disabilities, as well as the opportunity to work with stakeholders to build public trust and increase transparency.

Peer agency efforts to regulate or work with TNCs to improve access for persons with disabilities San Francisco is not the only large, urban city addressing accessibility of TNCs. A review of Boston, Chicago, and New York City found that peer cities are grappling with similar challenges and opportunities to improve access to TNCs for persons with disabilities.

- Accessible services have the best chance for success with a policy commitment to accessibility and a dedicated funding source. Many jurisdictions have required a surcharge to target funds for the provision of wheelchair accessible service.
- Riders with disabilities, like the general public, want to have choices. For example, bus service may work well for a disabled person's trips to work and school, but they may want to use a taxi or TNC on an evening after a movie. Riders also

want to choose whether to pay less by sharing a ride or to spend more to go directly to their destination.

- Training drivers of wheelchair accessible vehicles is crucial to smooth and safe operations. Drivers need to be comfortable with the securement systems and tie-downs, as well as different types of mobility devices. Drivers should also be well versed on the common needs of persons with different types of disabilities. Finally, drivers must know that riders with disabilities are the experts on their needs.
- Without publicly available data, it is difficult to assess the effectiveness of a partnership, incentive program, or regulation. Programs and regulators that have set benchmarks for accessible service have required TNCs to share data to confirm whether or not service standards and response time targets are being met.

Policy Options The report finds that improving disabled access to TNCs requires action across sectors.

Public Sector

Strengthen regulatory oversight of TNC accessibility. The TNC Access for All Act, or Senate Bill 1376 (Hill), requires the California Public Utilities Commission to implement regulations that improve accessibility of TNCs. To achieve this, the CPUC should develop regulations that

1. Extend protections to people with disabilities equally in all areas of the state.
2. Require sufficient data and establish requirements that make transparent how TNCs use public funds to achieve established benchmarks for service standards and response time targets.
3. Establish protections that ensure all drivers are trained to proficiency on serving passengers with disabilities.
4. Provide consumers with a mechanism for providing input on TNC service performance.
5. Commit CPUC resources to staffing, programs, and enforcement focused on improving disabled access.

Leverage the expertise of local agencies and consumers to develop and enforce strengthened regulations. To administer the regulations developed under the TNC Access for All Act, the CPUC should rely on locally-convened bodies with demonstrated expertise in providing, overseeing, or directing accessible transportation services. These entities will be best prepared to assist in establishing service standards and evaluating proposals for new services.

Private Sector

Improve the TNC user experience for all persons with disabilities. TNCs have clear opportunities to make changes to their business practices and service models. When making these changes, companies should prioritize riders who have traditionally not been served or have been underserved, particularly wheelchair users who require accessible vehicles. TNCs can achieve this by implementing changes to many aspects of their service, including the provision of accessible vehicles on their platforms, enhancing their consumer and driver-facing apps and scheduling/ dispatching interfaces, and improving disabled representation in company decision-making processes.

Cross-Sector

Create opportunities for public, private, and non-profit entities to work together to improve access for riders with disabilities. There are a number of opportunities for collaboration and partnership that provides innovative solutions to a range of transportation gaps or barriers. Collaboration across sectors could improve training of drivers, dispatching of wheelchair accessible rides, and availability of service.

Introduction

Since 2013, ride-hail companies, also known as Transportation Network Companies, or TNCs, particularly Lyft and Uber, have become an increasingly visible presence on San Francisco streets. According to analysis conducted using data from 2016, approximately 170,000 TNC vehicle trips were estimated to occur within San Francisco during a typical weekday, representing approximately 15% of all weekday vehicle trips that both start and end within the City (1). A more recent study found that TNC trips account for approximately 50% of the change in congestion in San Francisco between 2010 and 2016. The number and share of TNC trips in San Francisco has undoubtedly increased since 2016 (2).

The SFMTA and the San Francisco County Transportation Authority (the Transportation Authority) are creating a series of reports that will answer key questions about TNCs, their impacts on San Francisco, and how they are meeting the ten Guiding Principles that shape the City's approach to Emerging Mobility Services. The full set of reports will assess the existing regulatory landscape, various impacts, and best practices of ride-hail companies on:

- Congestion
- Disabled Access
- Equity
- Land Use and Curb Management
- Transit Demand
- Transit Operations

These reports will provide valuable data and analysis to help policy makers understand, assess, and respond to the impacts of TNCs as we work collectively to provide a range of transportation options that will enhance mobility and reduce greenhouse gas emissions and reliance on private automobiles.

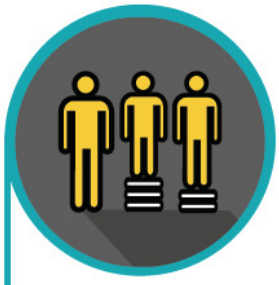
TNCs and Disabled Access

The arrival of emerging mobility services has expanded transportation options for some but it has not expanded options equally for all. For approximately 90,000 San Francisco residents with disabilities (almost 11% of the population) and an undetermined number of visitors with disabilities (regular commuters from around the Bay Area and tourists visiting from all over the world), TNCs may not be an option either some or all the time. While people with disabilities are

Emerging Mobility Guiding Principles

DISABLED ACCESS

Emerging Mobility Services and Technologies must be inclusive of persons with disabilities. Those who require accessible vehicles, physical access points, services, and technologies are entitled to receive the same or comparable level of access as persons without disabilities.



EQUITABLE ACCESS

Emerging Mobility Services and Technologies must promote equitable access to services. All people, regardless of age, race, color, gender, sexual orientation and identity, national origin, religion, or any other protected category, should benefit from Emerging Mobility Services and Technologies, and groups who have historically lacked access to mobility benefits must be prioritized and should benefit most.

SAFETY

Emerging Mobility Services and Technologies must be consistent with the City and County of San Francisco's goal for achieving Vision Zero, reducing conflicts, and ensuring public safety and security.

TRANSIT

Emerging Mobility Services and Technologies must support, rather than compete with public transit services, must account for the operational needs of public transit and encourage use of high-occupancy modes.

SUSTAINABILITY

Emerging Mobility Services and Technologies 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.

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.

CONGESTION

Emerging Mobility Services and Technologies must consider the effects on traffic congestion, including the resulting impacts on road safety, modal choices, emergency vehicle response time, transit performance and reliability.

FINANCIAL IMPACT

Emerging Mobility Services and Technologies must promote a positive financial impact on the City's infrastructure investments and delivery of publicly-provided transportation services.

LABOR

Emerging Mobility Services and Technologies must ensure fairness in pay and labor policies and practices. 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.

ACCOUNTABILITY

Emerging Mobility Services and Technologies providers must share relevant data so that the City and the public can effectively evaluate the services' benefits to and impacts on the transportation system and determine whether the services reflect the goals of San Francisco.

more reliant on for-hire services and make twice the number of for-hire trips than non-disabled persons per year, they are more reliant on taxicabs. People with disabilities report taking twice as many taxi trips as TNC trips (3) while overall there are approximately 12 times as many TNC trips as taxi trips during a typical weekday in San Francisco (4).

Many of the benefits that have attracted riders to TNCs, such as ease of payment, cheaper fares, and shorter wait times, are not afforded equally to persons with disabilities. The rapid expansion of TNC services has also degraded the quality and availability of on-demand transportation access for riders who require a wheelchair accessible vehicle by upending the existing taxi industry. The subsequent reduction in accessible ramp taxis has compromised the availability of accessible taxis under the San Francisco Paratransit Taxi and Paratransit Plus programs (5).

San Francisco's Guiding Principles for Emerging Mobility Services and Technologies establish that emerging mobility services are to be inclusive of persons with disabilities and that those who require accessible vehicles, physical access points, services, and technologies are entitled to receive the same or comparable level of access as persons without disabilities. Assessing the barriers people with disabilities face accessing emerging mobility services and technologies (EMST), the Transportation Authority's July 2018 *Emerging Mobility Evaluation Report* found that TNCs:

- Did not provide vehicles accessible to people using wheelchairs
- Charged more for accessible services[1] (fares for users requesting wheelchair accessible vehicles are higher than fares for other trips)
- Relied on mobile applications and websites that were not accessible by screen readers or assistive technology (i.e. 508-compliant, which means that all users, regardless of disability status, can access technology)
- Notified drivers of policies relating to transporting people with disabilities but did not provide specific trainings on how to assist people with disabilities
- Had not provided sufficient public data to fully evaluate whether, or to what extent, TNCs are aligned with the SFMTA and the Transportation Authority's policy goal of equal access.

As TNCs continue to change the way people travel, cities across the United States are grappling with how to leverage some of the progress and opportunities TNCs have provided while also ensuring or incentivizing equal access for persons with disabilities. Approaches include regulatory requirements, taxes or fees to support accessible projects or programs, and even partnership programs. Pilot programs around the country are demonstrating that TNCs can work with transit agencies, cities, and non-profits to help provide subsidized services to seniors, low-income persons, and at least some persons with disabilities (6) but there is work to be done to improve and standardize these relationships. Case studies in this report explore the opportunities and barriers presented by existing partnerships between TNCs and public transit agencies.

At the same time, the landscape of emerging mobility services is rapidly changing and cities are also looking toward the future. Among other changes, the advent of autonomous vehicles on TNC platforms have implications for both improving and impeding access for persons with disabilities and, without policy intervention, the autonomous future may mirror the TNC reality of today.

1 At the time of publishing, Uber is offering UberWAV at the same price as its UberX service.

Research Questions

This report builds on the *Emerging Mobility Evaluation Report* by performing an in-depth analysis on disabled access to TNCs such as Uber and Lyft. The report explores the need to understand existing obstacles and opportunities and is structured around four primary questions:

1. What are transportation options for people with disabilities in San Francisco and how have these options been impacted by TNCs?
2. How do TNCs serve people with disabilities?
3. How are TNCs regulated and monitored to provide access to persons with disabilities?
4. How are cities regulating and working with TNCs to improve access for people with disabilities?

What are transportation options for people with disabilities in San Francisco and how have these options been impacted by TNCs?

San Francisco is a Transit-First City and recognizes that residents and visitors benefit from a multimodal transportation system that provides mobility options that are accessible and available for all. Emerging mobility services like Transportation Network Companies are rapidly altering the transportation landscape and subsequently changing how people move around, both for better and worse. For example, analysis by the Transportation Authority found that TNCs have contributed to increased overall congestion, which has arguably altered the effectiveness of other modes frequently relied upon by riders who cannot access TNCs. This section explores how non-TNC modes in San Francisco, particularly pedestrian and vehicle traffic, transit, paratransit, and taxi service, serve persons with disabilities and how they have been adversely impacted by TNCs.

Pedestrian and Vehicle Traffic

The San Francisco Municipal Transportation Agency is the agency that helps people move around the city, and that includes designing streets and sidewalks with the everyday lives of older adults and people with disabilities in mind. The agency manages all traffic engineering functions, like placement of signs, signals, traffic striping, crosswalks, and curb markings to promote the safe and efficient movement of people and goods throughout the City. TNC services exhibit roadway conflicts in many of these areas, especially at curbs and accessible curb ramps – which have significant impacts on the ability of people

with disabilities to navigate the City safely. TNCs may also contribute to distracted driving, which decreases roadway safety. These conflicts pose considerable safety risks for older adults and persons with disabilities who are at higher risk to lose their lives from traffic-related injuries. For example, seniors account for approximately half of pedestrian deaths but only fifteen percent of the population (7) and people with mobility, hearing, and visual disabilities represent six percent of trauma center admissions involving transportation injury (8). Areas of special concern include:

- TNC trips represent approximately 15% of all weekday vehicle trips that both start and end within the city (9) and account for approximately 50% of the change in congestion in San Francisco between 2010 and 2016 (10). The increase in vehicle miles traveled increases the risk of collisions with older adults and people with disabilities.
- TNC services use in-app messaging and navigation during vehicle operation (during revenue and non-revenue hours) which can lead to distracted driving and contribute to collisions with pedestrians and other vehicles.
- TNCs are not currently required to participate in the City's driver training or fleet inspection. TNCs do not require operator training for drivers and neither Uber or Lyft test operators following any voluntary training.
- It is unclear if Uber and Lyft conform with Article 2, section 21702, of the California Vehicle Code which prevents drivers who are driving for compensation from driving more than 10 consecutive hours nor for more than 10 hours spread over a total of 15 consecutive hours (11).
- TNCs have not provided sufficient data on collisions and injuries. More data are needed to evaluate the operational safety of TNCs.
- TNC vehicles can create safety hazards by blocking traffic, transit and bicycle lanes, or driving unsafely.

Public Transit

Access to public transportation is a key to independence and full community participation for people with disabilities. In San Francisco, 27 percent of people with disabilities ride public transportation

daily (12). Fixed route transit ridership by people with disabilities appears to be increasing, and in major cities transit ridership by people with disabilities typically far exceeds ADA paratransit ridership, which is intended for riders who are not able to ride fixed route transit (13).

In the 2018 Muni Rider Survey, 75% of respondents indicated that they thought accessibility for persons with disabilities on Muni was Excellent or Good – the highest rated performance area of all queried performance areas. This rating reflects a longstanding agency commitment to accessibility and ensuring that persons with disabilities can fully participate in public life. All vehicles in service for the Muni system are fully accessible. Every Muni vehicle has a designated area to secure wheelchair users, audible stop announcements

to indicate station arrival information, and all buses are either equipped with lifts or low floors that deploy ramps to better accommodate those with limited mobility. In addition, all underground Metro stations serviced by Muni Metro include elevator access, with the City currently taking steps to make several additional street-level Metro stops accessible for riders who use mobility devices. Furthermore, all Muni operators are proficiently trained to assist and provide reasonable accommodations to passengers with disabilities. The SFMTA also offers Free Muni passes for low-to-moderate income older adults and persons with disabilities.

Increased congestion in San Francisco is a major concern for reliable transit operations because it increases the likelihood that private vehicles will use lanes or loading zones dedicated to bus and taxi use. Any resulting decline or interruption in transit service is a concern for riders with disabilities reliant on public transit. As for ridership, the Transportation Authority is currently studying the effects of TNCs on transit ridership in San Francisco by examining the changes in a number of factors between 2010 and 2015, including changes in population, employment, transit service, and TNC activity, and changes in transit ridership at stations across different areas of the City and times of day. While this study is underway, recent survey results and analyses do suggest, however, that TNCs are negatively impacting transit ridership rather than providing a service that is complementary to transit. A national survey by the University of California, Davis found this was especially true of bus and light rail services, reporting a 6% and 3% net reduction in use, respectively (14). Surveys by SFMTA also indicate that there is a disparity in which riders may utilize TNCs as a complement to transit. Over 40% of SFMTA's 2018 Rider Survey respondents indicated that if Muni was not available for their last trip, they would have used a ride hailing service to get where they needed to go (increasing ten percent from the same question in 2017) but less than 1% of those respondents who would choose a ride hailing service rather than Muni said they would do so because of a disability or age-related issue. For riders with disabilities in San Francisco, Uber or Lyft may not be as affordable and may not even be an option for riders who use certain mobility devices. In effect, transit agencies and TNCs are competing for some riders but not all. If this competition results in any decrease in public transportation, it would more significantly impact riders with disabilities heavily reliant on accessible and affordable Muni service.

ADA Complementary Paratransit

Over 12,000 San Franciscans with disabilities are registered paratransit consumers (15). As a complement to fixed route public transit, SFMTA administers SF Paratransit. SF Paratransit operates in accordance with Title 49 Part 37 of the ADA, which requires public transit agencies to provide transportation to qualified individuals who are unable to access an accessible fixed route system. Paratransit service is an eligibility-based transportation program that provides door-to-door shared ride service to qualified individuals. Paratransit serves all locations within ¾ mile of a fixed route line and the service hours must mirror the operational hours of the fixed route system. The maximum allowable one-way fare is twice the cost of an adult fare on fixed route service, but SFMTA has indexed the cost of SF Paratransit to

always be the same as an adult fixed route fare. Most limitingly for many riders, reservations must be made at least 1 to 7 days in advance, with service providers able to negotiate within one hour before or after the requested time.

As a more responsive door-to-door transportation option, TNCs could be another mobility option for some paratransit users. However, they are not as affordable or accessible as paratransit, and SFMTA has not observed a decline in overall paratransit use during the time TNCs have entered the market, especially for wheelchair users. From 2012 to 2017, the number of SF Access trips (ADA van service for individuals) completed by wheelchair users has remained relatively consistent with about 70,000 trips completed per year over this six-year span. A lack of overlapping ridership for TNCs and paratransit can also be explained by a difference in the demographics both services attract. Only 4% of those aged 65 and older have used ride-hailing services, as compared with 36% of those aged 18 to 29 (16). The average paratransit rider is 74 years old (17). TNC riders are also more affluent than the typical paratransit rider. Fifteen percent of TNC riders reported making $35,000 or less (18), while over 66% of San Francisco Paratransit riders reported income of $35,000 or less, with an average annual income of $19,000 (19).

Paratransit is a costly service for transit agencies to provide and its service parameters are directly related to fixed route public transit. If TNCs reduce public transit ridership and make it less cost-effective to serve some lower ridership routes at the same hours or at all, paratransit service in that area could be impacted, with service being reduced and possibly eliminated. San Francisco has a strong commitment to providing a robust transit and paratransit system throughout the City and this likely will not occur locally. However, SFMTA does serve customers connecting from suburban areas who may experience fixed route

service disruption linked to the presence of TNCs as either a competitor or a substitute to previously existing routes.

Taxis

The SFMTA regulates the taxi industry in San Francisco, which is comprised of over twenty taxi companies that operate approximately 1,500 taxi permits in the City, including permits specifically for wheelchair accessible taxis called “ramp taxis.”

Taxis provide convenient door-to-door transportation service that is available on-demand by hailing one on the street or requesting one via taxi company phone dispatch, websites, or smartphone apps. In San Francisco, the Flywheel App can be used to hail any participating vehicle operated by affiliated taxi companies and drivers, and Yellow Cab has a company app which can be used to electronically hail its vehicles. Taxis differ from TNCs since TNC vehicles cannot be hailed on the street, and TNCs cannot manage their own fleet of vehicles, requiring trips to be provided through their drivers’ privately-owned personal vehicles. TNCs also inform a customer of the cost of a ride upon request, whereas taxis and associated apps do not consistently provide cost estimates because rides are meter-based and include wait time.

Most importantly, TNCs and taxis differ with respect to how they are regulated with TNCs operating under

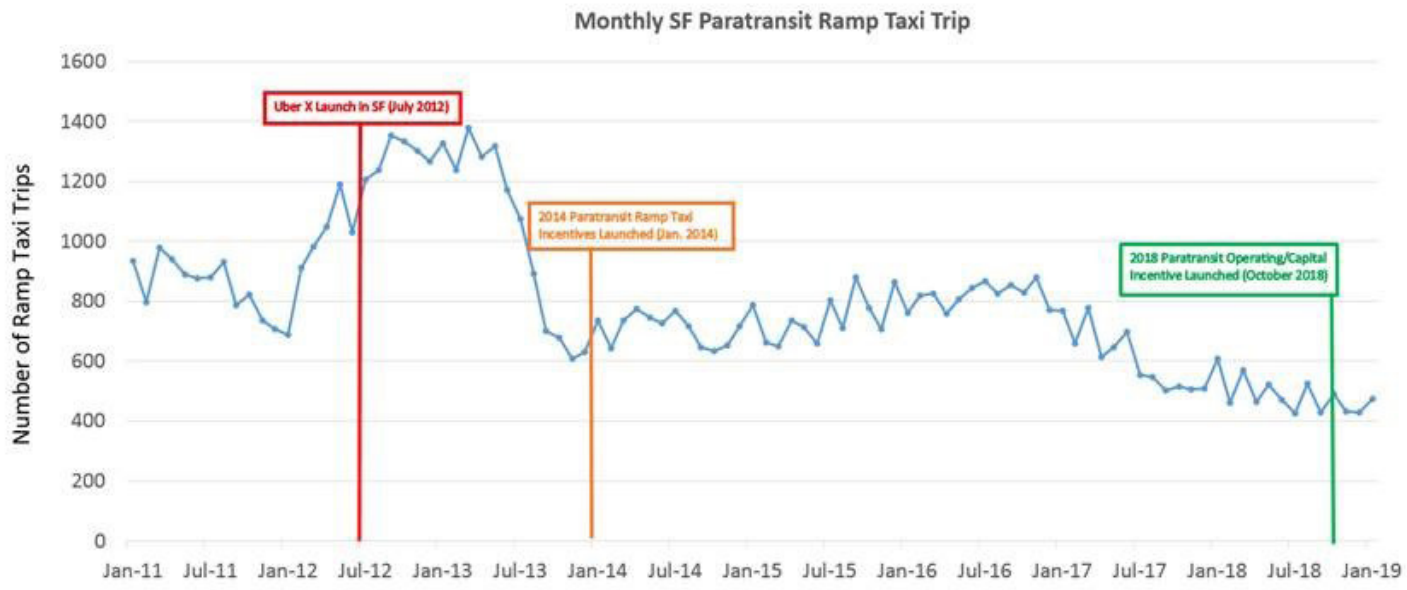


Figure 1: SF Paratransit Ramp Taxi Monthly Trips (FY12-FY18)

a less developed regulatory framework and with little enforcement. This includes not being subject to the same price controls as taxis, limited oversight to ensure or compel TNCs to provide access to people with disabilities, and not being subject to the same background checks and vehicle inspections. There is also no limit on the number of TNCs that can be on the street at any one time.

Taxis are a critical mode of transportation for people with disabilities in San Francisco and all taxi companies are required by City ordinance to participate in the SF Paratransit program. All taxi drivers are required to undergo sensitivity training for seniors and individuals with disabilities, including learning communication skills, how to handle various mobility aids, and how to process an SF Paratransit taxi debit card for payment. In addition, taxi drivers interested in operating a ramp taxi must undergo a separate training, which focuses on teaching how to secure a wheelchair in the vehicle while engaging in additional sensitivity training. The SFMTA has gone to great lengths to ensure that there are ramp taxis in the fleet and that ramp taxi drivers are available to receive trip requests via the Flywheel app. All cabs are equipped to accept the SF Paratransit Taxi debit card to provide same-day service to paratransit customers. The rapid growth of TNCs in San Francisco, and in cities across the country, has reduced the market for taxi ridership, and has impacted the taxi industry in ways that are especially harmful to riders with disabilities.

The most pressing issue is effect of TNCs on the taxi industry, which led to a significant reduction in the number of ramp taxis in operation in San Francisco. For many years, the SFMTA has provided financial incentives to encourage the operation of ramp taxis and at its peak, the city had issued100 ramp taxi permits. Currently only about 40 of the 100 ramp taxi permits are in service. Ramp taxis are costlier to operate and maintain and as the taxi industry faces more competition and less profitability, some drivers operating ramp taxis have left ramp service.

While the SFMTA is currently unable to track the total number of trips taxi drivers have provided to all wheelchair users, the agency has reliable data on the number of SF Paratransit ramp taxi trips taken by wheelchair users who qualify for the city's ADA paratransit program. (A wheelchair user must be unable to independently ride fixed Muni's fixed

Figure 2: SFMTA Ramp Taxi Incentives

Additional Incentives Introduced in 2014: SFMTA Ramp Taxi Incentives

- **$10 per Paratransit Taxi wheelchair pickup**

  To compensate for higher costs of fuel and maintenance of ramp vehicles, and longer boarding/securement times for wheelchair users.

- **One pass to the front of the line at the San Francisco International Airport (SFO) per two Paratransit Taxi wheelchair pickups in outlying neighborhoods**

  To encourage ramp taxis to pick up wheelchair users in outlying neighborhoods of SF, which can require long deadheads.

Incentives Introduced in 2018:

- **Up to $300 per month for Capital Cost Assistance**

  To help offset the cost of purchasing or convert a wheelchair accessible vehicle

- **$300 per month for Maintenance and Operating Cost Assistance**

  To help offset the additional cost of maintaining and operating a wheelchair accessible vehicle

- **$100 for every 100 Paratransit Taxi wheelchair pickups performed by a color scheme each month**

  Paid to color schemes (taxi companies) to incentivize all employees, including dispatchers, to prioritize ramp trips

Incentives Introduced in 2019:

- **Airport pick-up priority**

  Drivers can earn a short pass, valid for the entire month, that allows them to bypass long waits for pick-ups at SFO.

- **Other Incentives**

  Clean air grants of $3,500 are available for each wheelchair accessible clean air vehicle

  Monthly taxi permit fees are waived for ramp taxi permits

route buses and trains in order to be eligible for ADA paratransit. Many wheelchair users can and do ride Muni and therefore are not eligible for paratransit.) The SF Paratransit Taxi program provides ADA-eligible paratransit customers a user-side subsidy from SFMTA for the cost of their taxi trips. As of 2018, for every six dollars paid by the user, $30 of taxi value is loaded onto their paratransit taxi debit card, an 80 percent subsidy. Paratransit riders then hail a taxi the same way someone from the general public would – either on the street or by phone, web, or smartphone app. As illustrated in Figure 1, the year after UberX launched in San Francisco, the number of SF paratransit ramp taxi trips dropped to about 700, their lowest number per month since 2011. The number of trips per month has remained below 1,000, meaning trips have decreased by nearly a third. The advent of UberX and other TNCs has directly influenced the taxi industry, in part due to qualified ramp taxi drivers leaving the taxi industry, and taxi companies cutting back on costlier wheelchair-accessible taxi service in order to compete against TNCs.

The decline in the number of available ramp taxis in service has correlated to a decrease in the number of ramp taxi trips completed by wheelchair users in the SF Paratransit Taxi program. The decline in trips is not because wheelchair users in the Paratransit program have less demand for trips. In the 2017 Customer Satisfaction Survey, 95% of wheelchair users were satisfied with their most recent ramp taxi trip, indicating that the decline is not related to service

quality issues, but that they are either cannot hail a ramp taxi at all, or are subject to long waits for the limited number of ramp taxis that are still in operation.

This number may have further declined had the SFMTA not introduced several ramp taxi incentives in January 2014 to stabilize the program. In July 2018 and January 2019, the SFMTA introduced two more sets of incentives, to better support the ramp taxi program, as described in Figure 2.

Private Transit Vehicles

Among the suite of new mobility services to operate on San Francisco's streets, one on-demand transportation option in San Francisco did make strides to ensure that their services were fully accessible. Chariot, a Private Transit Vehicle service (PTV), which operated several routes in San Francisco until January 2019, primarily to and from the downtown and South of Market areas. This service had several accessible vehicles in their fleet. Chariot required those who need an accessible vehicle to toggle on "Accessible Service" in their profile to ensure that an accessible vehicle was deployed.

While operating in the same vein as TNCs, there were several differences in Chariot's operations. Chariot was not a point-to-point service, and instead operated along a fixed route with designated pickup points. It also owned all of its own vehicles, and drivers were employees, not independent contractors as with TNCs. In addition, its PTV service operated only within San Francisco, and therefore Chariot was regulated by SFMTA, not the CPUC. While recognizing these differences, Chariot's model demonstrated how deploying emerging mobility services and ensuring accessibility are not mutually exclusive goals. However, the fact that the business was relatively short-lived demonstrates the difficulty of operating a transit service without public investment, and the potential for customers to unexpectedly lose a service upon which they rely.

How do TNCs serve people with disabilities?

Individuals with disabilities are not a homogenous group. Each person has unique capacities and needs. As might be expected with such a diverse population, the impacts of TNCs have been wide ranging, revolutionizing mobility for some people with disabilities while hindering mobility for others.

The City of San Francisco does not have access to data that quantifies how many people with various types of disabilities are using TNC services or requesting to use the services but being denied. Even in cases where such data is collected, it has not been made publicly available by the TNCs or by the California Public Utilities Commission. Broader national-level analysis has found that while people with disabilities make twice as many TNC/taxi trips as non-disabled persons, taxis still account for two-thirds of their for-hire trips – a trend contrary to the fact that approximately 12 times as many TNC trips as taxi trips are made by the general population during a typical weekday in San Francisco (20).

The Emerging Mobility Evaluation Report (July 2018) highlighted some general policy and service barriers to disabled access

This section further examines these barriers, including ways in which TNCs have positively responded to challenges, identifies opportunities for TNCs to help fill transportation gaps and increase access to transportation for all, and summarizes areas where

TNCs are still struggling to meet the needs of all potential riders.

Current Operational and Policy Benefits

Non-discrimination policies Lyft and Uber, the two largest TNCs operating in San Francisco, require both drivers and riders to acknowledge within the services' terms and conditions non-discrimination policies that state a zero-tolerance policy for any discriminatory behavior that does not encourage accessibility for all. These policies require strong monitoring and enforcement mechanisms.

Unprecedented level of access to on-demand transportation for people with visual disbilities Consumers with visual disabilities in San Francisco have reported that TNC service has revolutionized mobility for blind users. TNCs have provided reliable service, a smartphone app which makes it easier for blind riders and TNC drivers to connect, and a simple payment method that does not require handling cash.

In April 2017, Lyft announced a partnership with the National Federation of the Blind to increase driver awareness of blind passengers' rights, implement effective public policies, and expand transportation options for those who are blind or have low vision. The announcement detailed steps such as making the app more accessible to blind passengers, educating the public and policymakers on the importance of access to transportation, and educating drivers.

Employment for Deaf and Hard of Hearing individuals as drivers In May 2015, Uber rolled out features to help drivers who have trouble hearing navigate the driver app, including a flashing light for ride requests, notifications to riders that the driver is deaf or hard of hearing, and text-only communication to help the driver and passenger converse. Uber has also partnered with the nonprofit Communication Service for the Deaf to recruit additional drivers who are deaf or hard of hearing. Lyft has conducted similar recruitment and retention efforts, including recruiting at the DeafNation expo, arranging get-togethers for local deaf drivers in San Francisco, and introducing app features similar to Uber's in April 2017.

Mandatory transport for riders with service animals In April 2016, a settlement between Uber and the National Federation of the Blind, its California affiliate, and individuals who use guide dogs, committed Uber to taking affirmative steps to prevent discrimination against blind riders who use guide dogs in its transportation network across the United States. Uber agreed to take affirmative steps to tell drivers about their obligations to transport riders who are disabled and use service animals. As part of this education, Uber will require that existing and new drivers expressly confirm that they understand their legal obligations to transport riders with guide dogs or other service animals. Uber also agreed to implement stricter enforcement policies—including removing a driver from the platform upon a single

complaint if Uber finds that the driver knowingly denied a person with a disability a ride because the person was traveling with a service animal. In addition, if Uber receives complaints that a driver denied a person a ride because of a service animal on more than one occasion, the driver is to be permanently removed from the Uber platform regardless of the driver's intent. Finally, Uber also agreed to enhance its response system for complaints related to discrimination against guide-dog users and will track detailed data on all allegations of such discrimination. The National Federation of the Blind and its California affiliate will deploy testers over a multi-year period to evaluate Uber's compliance with the settlement. In April 2017, with the help of the National Federation of the Blind, Lyft also updated their service animal policy (see non-discrimination policies, above).

Better Access to Healthcare Uber and Lyft have both introduced online platforms so that hospitals and medical centers can provide rides for their patients. These programs have been touted for their ability to provide better access to medical care and to potentially reduce missed appointments. A recent study on whether ride hailing reduced missed primary care appointments among Medicaid patients found that the missed appointment rate was not significantly different (21). However, medical offices already providing transportation may choose these platforms for the cost savings over traditional taxis and Non-Emergency Medical Transportation (NEMT) services. Additionally, there is potential for TNCs to serve as a substitution for unnecessary and expensive ambulance rides otherwise taken by low-risk patients. One study on the impact of Uber market entry on ambulance volume found a 7% reduction in the per capital ambulance volume (22).

Current Operational and Policy Challenges

TNC vehicles are largely inaccessible to wheelchair users While current TNC policies require drivers to accept rides from wheelchair users who can fold and stow their wheelchair, the same policies do not require drivers to assist wheelchair or other mobility device users with transferring into a conventional vehicle or folding and stowing the mobility device. Further, for riders who cannot or prefer not to transfer to a conventional vehicle, especially without assistance, one of the most consistent challenges is the lack of sufficient wheelchair accessible vehicles in service.

In late 2018, riders in San Francisco started to notice an increase in availability of wheelchair accessible vehicles on the Uber platform under a feature called "UberWAV," which offers fully accessible vans with certified drivers that can accommodate motorized wheelchairs and scooters. However, this program, a partnership between Uber and MV Transportation, a national paratransit provider, is still in its early stages and it is not yet clear whether availability and response times are consistent enough, and comparable enough to service provided in nonaccessible vehicles, for riders who use wheelchairs to depend on it.

Lyft offers an "Access Mode" in San Francisco which purports to dispatch vehicles in real time when the service is selected within the rider's profile. However, this feature does not currently match a rider with a wheelchair accessible vehicle. Instead, the rider is matched with a standard vehicle and sent a text message that states "Lyft accommodates service animals and foldable wheelchairs. If you need a vehicle with a ramp or lift, visit http://lft.to/access to connect to local services."

The list of services provided by Lyft is not equivalent to services being provided by TNCs to able-bodied persons. The website with these resources recognizes that the alternatives listed are not on-demand, stating "Many of the below accessible vehicle dispatches must be booked at least 24 hours in advance. In order to utilize their service, you may want to consider first

reaching out to the local dispatch to inquire about their sign-up process. Depending on the vendor, it may take several weeks to complete the enrollment process before being able to book a ride in their respective cities." Additionally, this statement does not acknowledge that many of the services listed are ADA paratransit and would also require the rider to be eligible for the service (unable to use fixed route transit some or all of the time).

Lack of accessible vehicles in the existing driver partner pool The Uber and Lyft models depend on driver partners who utilize their personal vehicles to provide rides. A typical driver partner does not own a vehicle capable of loading and securing passengers using wheelchairs. For many, the cost is not practical - accessible vehicles with ramps or lifts are costly and also have less efficient gas mileage. Furthermore, drivers who own accessible vehicles that have been customized to meet the needs of a specific individual may not want to use the vehicle to serve a larger group of wheelchair users. Aside from owning a vehicle, many driver partners may choose to rent a car through a program designed specifically for ridehailing. Financing companies that provide auto loans for ridehail vehicles, carmakers selling cars in partnership with TNCs, and even peer-to-peer rental companies offer short-term rentals for TNC drivers in need of vehicles. None of these programs currently offer wheelchair accessible vehicle options.

Pilots to introduce wheelchair accessible TNC service are sparse and information on their progress is limited or unavailable Uber and Lyft have purportedly both piloted or are in the process of piloting different wheelchair accessible service models in select cities across the country (including New York City, Chicago, Philadelphia, and Washington, D.C.). These models include partnering with commercial WAV providers and ramp taxi providers to fulfill these requests. However, data to indicate to what extent the pilot programs have been capable of providing equivalent service, and to what proficiency drivers are trained, are not widely available. In May 2018, researchers with the New York Lawyers for the Public Interest (NYLPI) tested the WAV services offered by Uber and Lyft in New York City and found that WAVs were not available 70% of the time. When WAVs were located, there was a major disparity in wait times between accessible and non-accessible ride requests. Moreover, not a single wheelchair-accessible vehicle could be located at New York City's two major airports, which are major destinations for people with disabilities (23). San Francisco may want to consider a similar study as Uber pilots its partnership with MV Transportation in the Bay Area. Otherwise, trip history, including response times, is only reported to the CPUC which does not currently analyze or share the data.

Limited training and guidance to provide assistance to persons with a variety of disabilities Lyft and Uber do not provide any direct training to their driver partners. Voluntary training resources for drivers are limited to video and text tutorials on a handful of topics. Uber publicly offers tips and directions on folding a wheelchair, storing a wheelchair, and storing a scooter. Lyft provides accessibility tips to drivers in a 2 minute and 46 second video. Prospective San Francisco taxi drivers are required to undergo sensitivity training for seniors and individuals with disabilities, including learning communication skills, how to handle various mobility aids, and how to process an SF Paratransit taxi debit card for payment. In addition, taxi drivers interested in operating a ramp taxi must undergo a separate training, which focuses on teaching how to secure a wheelchair user in the vehicle while engaging in additional sensitivity training.

Despite ADA requirements that all drivers should be trained to proficiency in serving passengers with disabilities, Uber offers only eligible, "top-rated," drivers the opportunity to participate in comprehensive

training on serving passengers with disabilities. The program, uberASSIST, provides independent training from third-party organizations on how to provide additional assistance to older riders and riders with physical disabilities. UberASSIST drivers and vehicles can accommodate folding wheelchairs, walkers and collapsible scooters, but do not have wheelchair-accessible ramps or lifts. Riders using the Uber app in San Francisco are offered this option and, according to Uber's website, the service is currently available in more than 40 cities around the world. As with the UberWAV program, there is no publicly available data on the numbers of drivers who have taken advantage of this training, how many people that use or attempt to use the UberASSIST service, and whether the service is effectively serving all of the people who want and need to use it. Most concerning to riders who have provided feedback to the SFMTA is that selecting this service may degrade the expected level of service as it limits the number of drivers eligible to perform the ride and reportedly resulted in longer wait times than usual.

Diminished access to other forms of transportation San Francisco is among a number of markets that experienced a decline in taxi service, particularly in wheelchair accessible ramp taxis, since TNCs began operations. The reduction in ramp taxis in San Francisco has compromised the availability of accessible taxis under the SF Paratransit Taxi program, which provide same day door-to-door service for riders who would otherwise rely on traditional ADA van service. Traditional ADA van service is less flexible as it must be scheduled one to seven days in advance. Additionally, as TNC ridership increases, there is concern that bus and rail ridership will decrease, which could result in decreased funding and cuts in public transit services (including bus, rail, and paratransit) relied upon by people with disabilities unable to access TNCs. And as more transit agencies partner with TNCs for first/last mile connections to fixed route transit or as a convenient, cost-saving option to provide paratransit to ambulatory riders, there is a risk of creating an inequitable two-tier system, in which ambulatory riders who are able to utilize TNCs can depend on flexible door-to-door service, while riders who use wheelchairs have fewer and less flexible options, either through paratransit (if they are eligible) or limited taxi service.

TNCs must address other issues of equity not entirely related to wheelchair or blind/low vision access In addition to the primary accessibility issues already discussed, people with disabilities, regardless of disability type, are also at risk for disproportionate degrees of marginalization and inequity factors than the general public. In San Francisco, for example, one in four people with disabilities live in poverty as opposed to 13% of the general population (24). In addition, adults with disabilities who are employed are more than twice as likely to experience poverty. The cost of WAV trips, availability of vehicles in different service areas, required access to a smartphone or smartphone application, hiring practices across the disability spectrum, and disproportionate response time considerations are inequities that TNCs should also address in order to provide sufficient service to the disability public. Individuals with disabilities who live outside of the urban center, lack consistent internet or WiFi services, lack a credit/debit card, are low-income, or who face other forms of marginalization would all benefit from increased accessible service and turning the TNCs' attention to accessibility for all.

Limited Access to Non-Emergency Medicaid Transportation for Wheelchair Users TNCs have increasingly sought out partnership with Non-Emergency Medicaid Transportation (NEMT) providers to supplement or in some

cases replace traditional NEMT services. Nationally, NEMT providers are responsible for arranging and providing transportation for many disabled people and older adults for whom it may be their only form of transportation to medical appointments. NEMT partnerships with Uber and Lyft do not appear to include any equivalent service for riders who require wheelchair accessible transportation.

Potential Benefits and Challenges

In addition to the identified opportunities and challenges that exist today, a number of developing issues could potentially impact disabled access to transportation network companies in the future.

Public Private Partnerships that Measure and Ensure Disabled Access The Federal Transit Administration's (FTA) Mobility on Demand (MOD) Sandbox Program is intended to integrate transit and MOD solutions, such as TNCs, and measure the impacts of these services on riders and overall systems. TransitCenter, a non-profit organization that supports advocacy, research and leadership development for transit reform across the U.S., has received a USDOT grant to evaluate the emerging mobility services funded by the MOD Sandbox Program with performance indicators to be broken down by equity modifiers, including disability. Successful projects funded by the MOD Sandbox Program may provide models for how public transit agencies and TNCs can successfully partner to provide service that promotes and provides disabled access.

Accessibility of Autonomous Ride Hail Vehicles Transportation Network Companies, as well as a number of vehicle manufacturers, are developing and testing self-driving vehicles intended to provide ride hailing services to the public. Automated Driving Systems (ADS) have the opportunity to provide much greater mobility for people with disabilities but only if they are designed and operated with disabled access in mind. None of the companies with permits to test ADS in California are currently using wheelchair accessible vehicles. One of those companies, Waymo, is currently testing their technology using new minivans, which are not wheelchair accessible. Under the ADA, a newly purchased van is required to be wheelchair accessible if operated as a taxi, since taxis are subject to the same rules as any other private transportation company that operates a demand responsive service. Unless a taxi company provides equivalent service, any van purchased must be accessible. 49 CFR sec. 37.29 and App. D. The California Public Utilities Commission is conducting a pilot program for ADS passenger service and is expected to issue final regulations and permits for ADS passenger service sometime in 2019. The CPUC will need to clarify, potentially through its rulemaking process in spring of 2019, whether ADS used for passenger service must also comply, and to what extent, with the ADA. A great opportunity exists for

California to ensure that autonomous vehicles used for passenger service are born accessible rather than forcing a path that requires retrofitting them later, at great social and financial expense.

Benefits and Barriers Observed by Disability Type

The TNC user experience varies based upon an individual user's needs. For people with disabilities, their experiences with both TNC apps and service vary widely based on functional needs. TNC policies and operations are designed in a way that easily facilitates access for some riders, while the same policies or operations may pose significant barriers that hinder and prevent use for others. Figures 3 and 4 provide estimates of each population size in San Francisco and summarize the experiences of various groups by disability type.

Figure 3: Current Operational and Policy Benefits for TNC Riders with Disabilities

Disability / Est. Population[2] (San Francisco)	Opportunities
Hearing Difficulty 22,625	• Audio is not needed for full functionality of the Uber or Lyft apps. • Assistive technology such as visible and vibrating alerts can help riders who are deaf or hard of hearing use the app. • In-app features, such as the ability to enter destination, direct texting with the driver can facilitate non-verbal communication between the rider and driver.
Vision Difficulty 18,385	• VoiceOver iOS, Android TalkBack, and wireless braille display compatibility. • Apps provide easy communication between the driver and rider • Payment methods are simple, do not require handling cash, and provide a clear description of charges • Door to door service
Ambulatory Difficulty 50,739	• Door to door service. • First-last mile connections to transit.
Wheelchair Users 5,000[3]	• Accommodations for riders who are able to safely transfer from and stow their own mobility device.
Service & Support Animals 10,777[4]	• Uber and Lyft both have a policy that drivers should always accept riders with service animals.
Cognitive Difficulty 36,498	• TNCs present an option that may be suitable for riders who cannot use Muni. For example, TNC riders are not required to understand routes and timetables. • Gives some family members and caregivers the opportunity to travel with individuals to services, appointments and social activities. • Better access to employment opportunities for individuals capable of accessing the service.
General/Other Considerations 94,000 (total)	• Real-time GPS tracking and sharing • Cashless payment • On-demand service at any time of the day or night • Better access to healthcare • Increased independence and choice leading to reduced social isolation • Short wait times in urban areas

2 Unless otherwise noted, the source for listed populations is the 2016 American Community Survey 5-Year Estimate

3 Approximately 2.2 million people in the U.S. (approx.. 0.6 percent of the U.S. population) depend on a wheelchair for day-to-day tasks and mobility. In San Francisco, 0.6 percent of the population would be equivalent to approximately 5,000 wheelchair users.

4 Number of Dog Assistance Tags that San Francisco Animal Care and Control has distributed through the California Assistance Dog Tag program.

Figure 4: Current Operational and Policy Challenges for TNC Riders with Disabilities

Disability / Est. Population[5] (San Francisco)	Challenges
Hearing Difficulty 22,625	• Concerns that drivers expect verbal communication
Vision Difficulty 18,385	• Mobile applications and websites may not be fully accessible by screen readers (i.e. 508-compliant). For example, VoiceOver provides notification when a driver has arrived but does not provide updates about where the vehicle is along its route. • Reports of TNC drivers refusing to pick up or not making accommodations to pick up passengers with visual impairments.
Ambulatory Difficulty 50,739	• More affordable shared ride services like Uber Pool and Lyft Shared require the rider to get into the vehicle within two minutes of the driver's arrival. For people with illnesses and disabilities, quickly walking a short distance can be painful and sometimes impossible. Riders are subject to fees for not boarding the vehicle in the allotted time.
Wheelchair Users 5,000[6]	• Policies do not require drivers to assist wheelchair or other mobility device users with transferring into a conventional vehicle or folding and stowing the mobility device. • Wheelchair accessible vehicles for users who cannot safely transfer into a conventional vehicle are not widely available on TNC platforms in San Francisco..
Service & Support Animals 10,777[7]	• Reports of drivers not accepting service animals, including drivers canceling trips when they arrive and see a service animal.
Cognitive Difficulty 36,498	• Concerns about driver background checks and safety training as people with cognitive difficulties are at much greater risk for exploitation and abuse. • Some individuals with autism may have difficulty ride sharing or navigating the social implications. • Not all people with cognitive disabilities have the credit history to apply for a credit card. • Lack of predictability can be difficult for some (e.g. different drivers).
General/Other Considerations 94,000 (total)	• Driver rating of disabled persons may be discriminatory • Perfumes and scents, music and loud noises can trigger migraines, headaches, asthma attacks, nausea, sensory overload or other health flare-ups • Some illnesses require frequent bathroom breaks. • Not all disabilities and illnesses are visible

5 Unless otherwise noted, the source for listed populations is the 2016 American Community Survey 5-Year Estimate

6 Approximately 2.2 million people in the U.S. (approx.. 0.6 percent of the U.S. population) depend on a wheelchair for day-to-day tasks and mobility. In San Francisco, 0.6 percent of the population would be equivalent to approximately 5,000 wheelchair users.

7 Number of Dog Assistance Tags that San Francisco Animal Care and Control has distributed through the California Assistance Dog Tag program.

How are TNCs regulated and monitored to provide access to persons with disabilities?

Federal Regulation

Under the Americans with Disabilities Act (ADA), TNCs are considered private entities primarily engaged in transportation and are required to be accessible to individuals with disabilities.[8] Despite arguments from TNCs that applicable parts of the legislation only apply to "public accommodations" and that TNCs should not be considered as such, the U.S. Department of Justice, responsible for enforcing ADA regulations for private entities, has taken the position that regardless of whether TNCs are public accommodations or not, they are still subject to the ADA as transportation providers (25). Under 49 C.F.R. § 37.103, this means that TNCs are responsible for adhering to the requirements listed on in Figure 5. (26) TNCs in San Francisco arguably do not fully comply with these federal requirements, which has prompted transit agencies and disability advocates to seek alternative means to encourage greater accessibility, particularly from the state regulatory agency, the California Public Utilities Commission. For a detailed analysis of TNC practices in San Francisco that are compliant with the ADA, and ways in which they may not be, refer to Appendix A.

Federal Regulations Pertaining to Public Transit Partnerships with TNCs

The varied regulatory structures under which TNCs operate across the United States has led to a murky understanding not only of the responsibilities TNCs have to serve people with disabilities but also how public transit agencies may leverage TNCs as partners.

In recognition of these questions, former USDOT Secretary Foxx (now Chief Policy Officer at Lyft) issued a "Dear Colleague Letter" (while in office) on shared mobility in December 2016 to address this. The letter reminds governments and agencies of their obligation to equity and access, as well as the need to adhere to Title VI requirements (a condition of federal funding) and ADA requirements that are independent of funding. TNCs are not currently direct recipients of federal funding but participate in federally-funded pilot programs where the funding recipient (a transit agency) is ensuring regulatory compliance, including providing equivalent service under the ADA (equivalent response times and fares), meeting Title VI, conducting proper drug and alcohol testing, reporting to the National Transit Database (NTD), and protecting user privacy.

State and Local Regulation

TNCs operating in the State of California are regulated and permitted by the California Public Utilities Commission (CPUC). The CPUC was created as a transportation regulatory body, and while taxi services, are regulated by cities and/or counties, charter-party carrier services, and passenger-stage companies, are regulated by the CPUC. The CPUC established its regulatory oversight of TNCs as charter-party carrier services in April 2013 via a decision adopting rules and regulations for TNCs "to ensure that public safety is not compromised by the operation of this new transportation business model." This CPUC decision resulted in California regulating TNCs at a state level, as opposed to a local level like other large cities, including New York City, Seattle, and Chicago.

The CPUC charges permitted TNCs a fee to support the administration of its regulatory program. A recent decision by the CPUC to reduce the gross revenue fee assessed to the gross receipts of TNCs indicate that a surplus of revenue was being collected but not

8 Private entities that are primarily engaged in the business of transporting people and whose operations affect commerce shall not discriminate against any individual on the basis of disability in the full and equal enjoyment of specified transportation services. This obligation includes, with respect to the provision of transportation services, compliance with the requirements of the rules of the Department of Justice concerning eligibility criteria, making reasonable modifications, providing auxiliary aids and services, and removing barriers (28 CFR 36.301-36.306).

Figure 5: U.S. Code of Federal Regulations 49 C.F.R. § 37.103 – Purchase or lease of new non-rail vehicles by private entities primarily engaged in the business of transporting people

Non-Discrimination Provisions

- TNCs cannot prevent a person with a disability from using the service. § 37.5(b)
- TNCs must reserve designated priority seating but not require use of designated priority seating. § 37.5(c)
- TNCs may not impose special charges (extra fees) on individual with disabilities. § 37.5(d)

Service Animals (49 C.F.R. §§ 37.3 & 37.167(d))

- Service animals may accompany passengers in TNCs. Service animals are animals that are individually trained to perform tasks for people with disabilities.

Training Requirements (49 C.F.R. § 37.173)

- TNCs shall ensure that personnel are trained to proficiency, as appropriate to their duties, so that they operate vehicles and equipment safely and properly assist and treat individuals with disabilities who use the service in a respectful and courteous way, with appropriate attention to differences among individuals with disabilities.

Responsible Person and Complaint Procedures (49 C.F.R. § 37.17 – Effective July 2015)

- Each TNC must designate at least one person to comply with the DOT requirements.
- Each TNC shall adopt complaint procedures that incorporate due process standards.
- TNCs should provide prompt, equitable resolution of complaints.

Maintenance of Accessible Features (49 C.F.R. § 37.161)

- Lifts/ramps, securement devices, signage, and public address systems must be maintained and must be repaired promptly.
- If accessible features are not functioning, the TNC must take reasonable steps to accommodate persons with disabilities who would otherwise use the feature.
- Isolated or temporary interruptions due to repair or maintenance are not prohibited.

Other Service Requirements (49 C.F.R. § 37.167)

- TNCs must ensure that operators make use of accessibility-related equipment and features.
- TNCs must provide adequate information regarding transportation services, and the information must be made available through accessible formats.
- Persons using a lift must be allowed to exit at any stop, unless it would damage the lift or there are temporary conditions precluding anyone's use of the stop.
- TNCs must ensure adequate time allowed to board/disembark.

adequately expended to ensure proper enforcement of CPUC regulations regarding TNCs. While the exact amount of revenue is unknown, it is estimated that an excess of $2 million dollars was collected in San Francisco alone (27). On February 7, 2018, SFMTA submitted a letter to the CPUC requesting that the CPUC not reduce the fee and instead use the funds to support staffing and programs for enforcement, safety, and accessibility (28).

In addition to the CPUC's statewide regulations applicable to TNCs, there are also some local regulations. This includes local business registration requirements and airport permit requirements that are in place in some areas of the state, including San Francisco (29). For example, the San Francisco International Airport (SFO) requires TNCs to obtain a permit to service passengers at the airport, which includes signing a declaration that their service is providing reasonable accommodation to passengers with disabilities. The program also assesses a fee, which generated over $40 million in revenue from TNCs in 2018 (30).

CPUC Accessibility Requirements, Reporting and Compliance

With regards to accessibility of service for the general public, however, the CPUC is currently the only state or local entity in California that regulates and monitors TNCs to ensure disabled access. As noted in the CPUC's Decision during the Phase I Rulemaking Process for TNCs,[9] the Commission "has few provisions or protections to ensure equal access for passengers with disabilities under its current...regulations." The oversight the CPUC currently provides to ensure equal access includes requiring TNCs to submit an initial set of reports related to accessibility when applying for a permit and requiring TNCs to submit subsequent annual accessibility-related reports in order to maintain a permit with the CPUC.

The annual reports are due to the CPUC once a year on September 19th, for a reporting period between September 1 and August 31, and are also required to be distributed to entities on the service list for the rulemaking proceeding (which includes the Transportation Authority and the SFMTA). In Appendix B, we have included a detailed assessment of what the reporting requirements tell us and where they fall short. At a high level, the data and reporting required by the CPUC, especially for what is made public, are not sufficient, in either scope or detail, for interested parties to be able to provide informed feedback and do not indicate that these reporting requirements result in a standard or improved level of TNC service for people with disabilities. For example, data from the annual report on Providing Accessible Vehicles are only made publicly available by the CPUC in high-level annual summaries (see Appendix C for all publicly available data through the time of print). Data on service provided by zip code, including reasons for ride denials, is not made public at all. Additionally, the level of detail that TNCs provide on any instances or complaints of unfair treatment or discrimination of persons with disabilities does not clearly quantify whether the problem has remained consistent, or gotten better or worse. For example, complaints reveal that denial of service animals remain the most common complaint despite both Uber and Lyft adopting non-discrimination policies.

Finally, Lyft has not filed an update on its accessibility plan since the initial version submitted to the CPUC in 2013. Uber, which was recently required to re-apply for a TNC permit under its parent company, Uber Technologies, rather than its previously-permitted subsidiary, Rasier, LLC, submitted a new Accessibility Plan to the CPUC as part of its application process, but filed it confidentially, under seal. In absence of the CPUC providing any report card or analysis on the TNCs' ability to provide equal access, any entity interested in finding out about TNCs and disabled access is not able to obtain a complete picture on the state of disabled accessibility related to. For a public planning agency to perform a thorough analysis of TNC activity, the following data are required:

Trip records. This should include a unique vehicle identification number, detailed origin and destination information; timestamps and locations of all stages of service (including driving to pick up a passenger, transporting a passenger, and dropping off a passenger), vehicle miles traveled in all stages of service fare; party size; whether the vehicle is wheelchair accessible, whether the passenger has a wheelchair, and vehicle type (zero-emissions, non-zero-emissions).

Telemetry records. This should include a unique vehicle identification number, vehicle type (zero-emissions, non-zero-emissions), location (lat/lon), timestamp, acceleration, which stage of the trip a ride is in, and number of passengers at 1-second resolution.

9 Adopting Rules and Regulations to Protect Public Safety While Allowing New Entrants to the Transportation Industry

Cancelled or declined trip records. This should include a driver identification number, timestamp, driver location, requested pick-up location, requested drop-off location, wheelchair requirements of the requestor.

Driver information. This should include insurance status, background check status, and safety/accident data.

Senate Bill 1376 (Hill): Disability Access to Transportation Network Companies (TNC Access for All Fund)

To expedite requiring TNCs to provide greater accessibility for persons with disabilities, particularly wheelchair users, the California State Legislature passed Senate Bill 1376 (Hill): Disability Access to Transportation Network Companies, also known as the TNC Access for All Act, in September 2018. This legislation went into effect on January 1, 2019, and mandates that the CPUC develop regulations for TNC accessibility for persons with disabilities. Moreover, the new law requires the CPUC to:

- Engage in workshops with relevant stakeholders;
- Assess a minimum $0.05 fee on all TNC trips to fund on-demand accessible transportation services (which would generate approximately $3 million annually in San Francisco, according to estimates from the Transportation Authority's TNCs Today report);
- Request interested participants to submit plans for funding on-demand accessible transportation services in order to meet the transportation needs of persons with disabilities;
- Require specific criteria and reporting from participants provided funding;
- Create a working group with stakeholders to examine duplicative programing in transportation services for disabled persons; and
- Report to the Legislature by January 1, 2024 on the implementation of the program.

To successfully monitor the programs required by the Access for All Act, the CPUC must address how it regulates TNCs in general, particularly with regards to data collection. For example, analysis by the Transportation Authority found that the Commission's current data reporting requirements for TNC permittees was not sufficient to implement SB 1376 (see Appendix D for a summary of the current reporting requirements and their sufficiency).

During the regulatory development process required by SB 1376, the CPUC and stakeholders have the opportunity to develop thoughtful regulations that will guarantee equal access to TNCs for wheelchair users and all people with disabilities. In our experience, the Commission can do so by building public trust and increasing transparency. In the Policy Options section of this paper, we provide a number of opportunities for the Commission to achieve these goals during SB 1376 implementation and through ongoing rulemaking.

Pending legal action and legislation

TNCs are potentially subject to further regulation in the coming years as a result of pending litigation in courts across the country and with a proposed tax pending in San Francisco. Nationally, there are at least three lawsuits, in Chicago, Washington, D.C., and Oakland, making their way through the courts seeking clarity as to whether Uber is subject to the provisions of the ADA with respect to providing equivalent travel services to motorized wheelchair users and those who require wheelchair accessible vehicles.

In Chicago, Access Living, a cross–disability organization governed and staffed by a majority of people with disabilities filed a lawsuit alleging that Uber is a public accommodation and subject to Title

III of the ADA, which governs public accommodations provided by private entities and protects individuals from discrimination on the basis of disability in the services provided. Access Living is seeking:
1) a declaration that the ADA requires Uber to provide equivalent services to motorized wheelchair users and others who cannot transfer into traditional vehicles, and that Uber has violated the ADA by not doing so, and 2) an order requiring Uber to provide service to motorized wheelchair users that is equivalent to the service it provides the general public, taking into account cost of use, response time, geographic area of service, availability of service, availability of information, reservations capability, and similar factors.

In early 2019, a judge issued a decision in *Access Living v. Uber*, rejecting Uber's arguments that the company is primarily a technology platform (or app) and does not need to provide equivalent services because the company does not own vehicles. As a result, the case may result in a decision that Uber has to comply with Title III of the ADA.

In September 2018, Governor Jerry Brown signed a bill, AB 1184, (Ting) that authorizes a tax measure may be placed before San Francisco voters to impose up to a 3.25 percent tax per ride and 1.5 percent tax per pooled trip on net rider fares. AB 1184 also authorizes San Francisco to apply the tax on autonomous vehicles that are used commercially and gives San Francisco the option to set a lower tax rate for rides provided by zero-emission vehicles. If approved by two-thirds of the voter, proceeds from the tax can be used to support transportation and infrastructure. The tax is expected to generate roughly $30 million annually in San Francisco for the first few years. An expenditure plan for that measure has not yet been developed, but it is a potential funding source to address TNC impacts that affect a range of people, including San Franciscans with disabilities.

How are cities regulating and working with TNCs to improve access for people with disabilities?

The following case studies explore how, either by regulating an industry, assessing a fee, or through partnership with public transit agencies, cities are working with Transportation Network Companies to provide accessible service to persons with disabilities. The following case studies are not intended as an exhaustive summary of all activities in the area of TNC accessibility in each city. Instead, each case study highlights a unique program or strategy that may provide lessons learned for San Francisco and California.

It is important to remember that different cities and/or states are subject to different regulatory structures and authorities. One critical difference between San Francisco and the case study cities is that San Francisco does not have the authority to regulate TNCs on a city-level absent clear state law authority. In California, taxis are regulated at the local level, but TNCs are regulated at the state level by the CPUC. Therefore, some of these strategies may not be replicable in San Francisco unless the California legislature or the CPUC authorizes them (31) or if the SFMTA determines

TNCs have met all necessary requirements in order to partner with agency to provide services to the general public (including ADA, Title VI, etc).

Case Study 1: Regulation to Increase Accessibility of TNCs

New York

The New York City Taxi and Limousine Commission (TLC) regulates the for-hire vehicle (FHV) industry in all five boroughs of New York, which includes community car services using livery vehicles, app-based and traditional black car services (e.g., Uber, Lyft), and luxury limousine services. All for-hire vehicle (FHV) businesses licensed by the TLC are required to provide equivalent service to wheelchair-using passengers, and in 2017 and 2018 the TLC passed rules to increase the availability of wheelchair accessible vehicles (WAVs) in the FHV industry. As of January 14, 2019, for-hire vehicle businesses must either send a certain percentage of their trips to wheelchair accessible vehicles, or partner with an approved Accessible Vehicle Dispatcher to service WAV requests.[10] The TLC also has several education requirements, one of which is that drivers must take a "Passenger Assistance and Wheelchair Accessible Vehicle Training" course ("WAV training"). All new drivers are required to take the WAV training course and existing drivers must take the course when they renew their license (and licenses must be renewed every three years).

Three methods for compliance

The established rules allow for some flexibility in how TNCs and other FHVs ultimately provide equivalent services to wheelchair users. Depending on the company's abilities and interests, FHV companies can comply with accessibility requirements in one of three ways.

1. **Dispatch a percentage of trips to wheelchair accessible vehicles** By June 2019, FHVs will need to dispatch a minimum 5% of all trips to wheelchair accessible vehicles. The percentage will grow year over year until it reaches 25%. Companies will be assessed on an annual basis in June and those that do not meet the percentage will be fined $50 for each 100 trips underneath the requirement. The fine is structured in this manner so that it will not be devastating to smaller companies and that the amount potentially charged to larger companies, which could roughly match the cost of a wheelchair accessible vehicle, would encourage those companies to invest their money accordingly. If a company fails to dispatch enough trips to WAVs to meet at least half of its percentage requirement, the company is subject to suspension or revocation of its TLC license.

Figure 6: New York City Taxi and Limousine Commission Trip Percentage Rule

Year	Start Date	End Date	Minimum percentage of trips to WAVs
1	January 14, 2019	June 30, 2019	5%
2	July 1, 2019	June 30, 2020	10%
3	July 1, 2020	June 30, 2021	15%
4	July 1, 2021	June 30, 2022	20%
5 and beyond	July 1, 2022	June 30, 2023	25%

2. **Form an agreement with an Approved Accessible Vehicle Dispatcher** FHV businesses seeking an exception from the percentage rule can establish an agreement with an Approved Accessible Vehicle Dispatcher. Once an agreement is reached and approved by the TLC, businesses will forward all

10 The TLC also sets requirements and establishes programs for the dispatch and operation of accessible taxicabs and street hail liveries. To promote and increase accessibility across the traditional taxi and street hail fleet, the TLC levies a $0.30 surcharge on all rides. These fees feed into the Taxi Improvement and Street-Hail Livery fund, which provides grants for accessible vehicles, incentives to drivers who operate accessible vehicles, and funds the operation of the Citywide Accessible Dispatch program, a program connecting riders with accessible taxis in all five boroughs by call, text, or smartphone app.

requests for wheelchair accessible vehicles to the approved dispatcher. In order to comply, trips will need to meet response time benchmarks set by the TLC. Initially, 60% of wait times should be 15 minutes or less and 80% of all wait times should be 30 minutes or less. These benchmarks will increase to 80% of wait times of 15 minutes or less and 90% of wait times of 30 minutes or less in June 2020, and then finally to 90% of trips serviced in 15 minutes or less in June 2021. To set benchmarks that result in "equivalent service", where a passenger requesting a wheelchair accessible vehicle waits as long as a passenger requesting a non-wheelchair accessible vehicle, the TLC based the requirements on an earlier analysis of typical FHV wait times around New York City, setting the benchmark below the goal for year one, and increasing over the next year until it meets the goal.

Figure 7: New York City Taxi and Limousine Commission Wait Time Benchmarks for Wheelchair Accessible Vehicle Requests

Wait Time Benchmarks		
Evaluation Point	Trips serviced in 15 minutes or less	Trips serviced in 30 minutes or less
June 2019	60%	90%
June 2020	80%	90%
June 2021	90% (including 80% in 10 minutes or less)	–

- In addition to existing trip record requirements, associated businesses will be required to report the date and time all requests for accessible vehicles are received by the businesses and forwarded to the approved Accessible Vehicle dispatcher, and the date and time all requests for non-accessible vehicles, which result in completed trips, are received by the business. This applies to all trips dispatched by the business itself, and not forwarded to an Accessible Vehicle dispatcher.
- Companies that do not reach these benchmarks will no longer qualify for an exception to the percentage rule and, moving forward, would be evaluated and fined based on the percentage of trips the business dispatches to wheelchair accessible vehicles moving forward. These companies will not benefit from a ramp-up period starting at 5% and will be expected to comply with the minimum percentage that all other companies have reached as part of the phase-in.

3. **Become an Approved Accessible Vehicle Dispatcher** Four companies – Uber, Lyft, Via, and Exit Luxury – applied and were granted permission to operate as Accessible Vehicle Dispatchers. The dispatchers must meet the wait time benchmarks established by the TLC and demonstrate that response times are improving each quarter. The dispatch is required to submit the same data on trip requests and fulfillment as the businesses they are serving. If an Accessible Vehicle Dispatcher fails to meet the requirements, it will have 30 days to come into compliance with the stated response time requirement. Failure to come into compliance within 30 days of notification may result in termination of the Accessible Vehicle dispatcher's approval, immediately subjecting the Accessible Vehicle dispatcher to the percentage requirements, pro-rated for the duration of the compliance period.

Key Findings

- New York City has offered for-hire vehicle companies three methods to demonstrate that they are providing accessible service. Companies can choose their route to compliance based on what works best for their business model.
- The NYC TLC set the benchmarks for WAV wait times and the trip rule percentage in a way that phases in compliance over time. The approach provides increasingly responsive goals while giving

companies time to get into full compliance by June 2021 for models evaluated by wait time benchmarks or by 2023 for models evaluated by trip percentage benchmarks.

- The TLC based wait time benchmarks for WAV requests on an earlier analysis of typical wait times for all for-hire vehicle requests around the city. This is a model that can be replicated in other areas where data is available on current wait times.
- Each company must submit monthly trip records to the TLC. These records support whether companies are meeting the established compliance benchmarks.
- Drivers are also responsible for complying with the TLC's accessibility requirements. New drivers must complete accessibility-related training and upon renewal every three years.

Case Study 2: Partnership to Improve Paratransit Services

Boston

In October 2016, the Massachusetts Bay Transportation Authority (MBTA) launched a pilot with Uber and Lyft to offer on-demand service to customers of the RIDE, the agency's ADA paratransit service. Customers who qualify for paratransit can participate in the pilot, where each month subsidy is loaded into a customer's account with the company of their choosing. Wheelchair users, however, are not required to choose one company and can instead use any of the participating companies. The initial pilot started with 400 customers and was expanded to all RIDE consumers on March 1, 2017, after providing an initial 10,000 rides. In July 2018, the pilot was expanded to include Curb Mobility (a taxi app) to increase the availability of wheelchair accessible vehicles in the program and to make cash payment an option. Due to its popularity, the pilot was extended until January 2019 and again to July 2019.

Program Goals

The on-demand paratransit pilot was designed to reduce the cost of the RIDE, while also improving the mobility and flexibility of travel for customers. The pilot will be evaluated on its ability to:

- Reduce overall costs in the short term
- Provide a high quality service
- Improve RIDE customers' mobility and flexibility
- Increase the use of emerging transportation technologies
- Provide equal and accessible service for all RIDE customers

MBTA's contract for paratransit service compensates its paratransit vendors by service hour. Therefore the RIDE is also seeking to incentivize shifting longer paratransit trips to TNCs.

Program Accomplishments: Customer Mobility and Satisfaction are Higher

Today, there are approximately 1,250 active users taking 13,000 monthly trips, representing 10 percent of total MBTA monthly paratransit trips. Approximately 30% of all trips per month are UberPOOL or Lyft Line, meaning users are opting into shared rides.

The program, which has a $40 per trip maximum subsidy, has remained cost-neutral with 0-1% total savings. While the average TNC trip costs the MBTA around $17 as compared to the average traditional RIDE trip cost of around $41, consumers have utilized the TNC services 46 percent more often than the previous baseline usage of the traditional paratransit program. According to a recent user survey, customers reported increases in using the service for many trip types, including social trips (63 percent), work/school/volunteering trips (49 percent), and even healthcare trips (38 percent).

In addition to increased mobility, consumers also report increased satisfaction. According to a summary

from a September 2018 forum on ridehailing partnerships, riders "have given higher average customer satisfaction ratings on a scale of 1 to 7 to Uber/Lyft (6.3) than the RIDE (4.2) across a range of categories. The biggest differences in satisfaction are "convenience" and "trip travel time," with customers noting they like the ability to have non-shared rides with Lyft and Uber.

Program Limitations: Accessibility of Vehicles and Service Remains a Barrier

While current users of the program report increased mobility and satisfaction, the benefits of the TNC services do not extend to all potential users. Participation by wheelchair users during the initial pilot period has been low, presumably due to the lack of available WAVs in the Uber and Lyft fleets. While 18% of RIDE customers require wheelchair accessible vehicles, a smaller percentage of pilot users, 14%, require wheelchair accessible vehicles, and only 0.7%-2.5% of pilot users who took at least one TNC trip per month were users recorded as requiring a wheelchair accessible vehicle. This discrepancy in enrolled users and participating users could be due in part to an overall lack of accessible vehicles in the fleet and perhaps a participant drop-off after negative experiences in attempting to request but not finding a wheelchair accessible through a TNC app, either at all or within a sufficient response time. Data are not available on wait times for wheelchair accessible vehicles, and the MBTA is unable to release information about how many TNC WAV trips have been requested and/or completed.

Additional barriers include how accessible it is to request and pay for a ride. Rides can be scheduled on-demand through both Uber and Lyft's apps but only Lyft customers can use Lyft's third-party phone-in "concierge" service to order a ride – Uber does not have a phone reservation option. Neither Uber nor Lyft accept cash as a form of payment, and there is not an MBTA-centralized training for TNC drivers, including training for TNC drivers who participate in the pilot. It is yet to be determined whether the introduction of Curb Mobility will sufficiently be able to provide equivalent service to riders who require wheelchair accessibility and the option to pay with cash instead of a debit or credit card. To address issues of WAV availability starting April 1, 2019 a WAV subsidy pilot has been initiated by the Massachusetts Department of Transportation (MassDOT) and the MBTA to provide a fixed per-hour subsidy for each hour that an Uber or Lyft WAV's are available on TNC platforms. A per-trip fee assessed through the 2016 Act Regulating Transportation Network Companies will be used to reimburse participating TNCs in exchange for providing on-demand WAVs within The RIDE service area. It has been estimated that this subsidy will cover approximately 50 percent of actual WAV supply cost with TNCs contributing the remainder. While the one-year pilot will launch within the RIDE service area, MassDOT and the MBTA will explore similar pilot options for regions outside the service area if this pilot is deemed successful. The expected annual cost of this one-year pilot is approximately $2.4 million; the goal if this pilot is to quadruple the WAV supply hours.

Key Findings

- MBTA RIDE's pilot on-demand paratransit program is like SFMTA's SF Paratransit Taxi program except that it provides subsidies for TNC rides. The main differences are that MBTA riders must choose one company (Lyft, Uber or Curb Mobility) and the ability to reserve by phone or pay by cash is not available for all partners.
- MBTA's pilot has provided additional mobility to consumers who previously depended on a system that requires advanced reservations. Riders in the pilot have used the service 46% more than traditional paratransit.

- While trips provided in partnership with TNCs cost the transit agency less, paratransit program costs remain about the same because of the increase in ridership overall.
- Riders who have participated in the pilot are still open to sharing rides like they would on a traditional paratransit vehicle, presumably because it is more cost-effective than riding alone.
- Uber and Lyft have not been able to provide equivalent service to wheelchair users in the pilot program. While 18% of RIDE customers use a wheelchair, only 0.7%-2.5% of pilot users who took at least one TNC trip per month required a wheelchair accessible vehicle.
- In July 2018, the pilot was expanded to include taxi service to better meet the needs of wheelchair users. In April 2019, MassDOT and MBTA initiated a pilot to provide per-hour subsidies to Uber and Lyft to perform WAV service. This pilot will help determine whether the model can support improved WAV service for other regions outside of the RIDE service area.

Case Study 3: TNC surcharge to support accessible taxis

Chicago

In May 2014, the City of Chicago Transportation Network Providers (TNP otherwise known as TNC) Ordinance established a licensing and regulatory framework for the TNC Industry in Chicago. The ordinance includes a $.10 per trip accessibility fund fee to be levied on all TNC rides performed by a non-accessible vehicle, and a $100 per taxicab vehicle fee per year to the city's accessibility fund[11]. Funds collected through the fees originally only supported the accessibility of traditional taxis, adding over 170 accessible vehicles to the taxi fleet.[12] In 2017, the Chicago ordinance was amended to mandate TNC companies implement "plans to enhance service to customers with disabilities." According to the City of Chicago's Department of Business Affairs and Consumer Protection (BACP), in 2018 TNCs performed three times more WAV trips than in 2017. Most recently, in November 2018, Chicago introduced a new pilot program that offers incentives for wheelchair accessible TNC service.

Figure 8: TNC WAV Trip Data from City of Chicago's Business Affairs and Consumer Protection (BACP)

Year	Trip Count
2017	9,638
2018	29,035

Consumer Protection Measures

The TNC licensing and regulatory process is administered by the City of Chicago's Department of Business Affairs and Consumer Protection. In addition to the fees levied on non-accessible TNCs, the Chicago TNC ordinance also instituted requirements to better serve and protect consumers with disabilities. The ordinance requires that:

- All TNCs implement plans to enhance service to customers with disabilities.
- All TNC digital platforms connecting drivers and passengers must be accessible to customers who are blind, visually impaired, deaf and hard of hearing.
- All taxicabs and TNCs must accept passengers with service animals.
- WAV taxicabs and TNCs must have side-entry accessible ramps to ensure curb-side loading and discharge of passengers using wheelchairs.
- Drivers are prohibited from providing ratings to customers based on disability.

11 In 2012, a separate ordinance created a $100 per taxicab vehicle fee. In 2016 this changed to a $22 per month per taxicab vehicle fee.

12 As of July 2019, Chicago's Department of Business Affairs and Consumer Protection estimates there are approximately 400 WAV taxicabs in Chicago.

- All TNC drivers undergo training and TNC WAV vehicles are inspected by the city and must pass both the training and inspection to operate a WAV in Chicago; and
- The TNC's smart phone app must display the City of Chicago's 311 service center number for passengers to file complaints and compliments. Additionally, all TNC drivers must display an approved "Call 311" sign in the affiliated vehicle while providing TNC services.

Monitoring and Compliance

Data must be provided to the City by the TNCs including data considered necessary to monitor accessibility. This includes but is not limited to: the number of WAVs, the number of WAV requests referred to other persons that dispatch WAVs, and any other information necessary to conduct studies on the equity of service.

Uses of the Accessibility Fund

The City's Accessibility Fund receives approximately $6.5 million annually. From January 2016 through June 2019, the funds supported the addition of 170 accessible taxicabs to the citywide taxi fleet, and supported a Centralized WAV Taxicab Dispatch Service, accessible vehicle subsidies for taxicab drivers, and vehicle maintenance incentives for taxi drivers. However, these funds were not available to TNC drivers to support wheelchair accessible TNC service. In an effort to increase the number of transportation network WAVs, Chicago introduced a pilot program, starting November 9, 2018, to provide incentives to TNC licensee companies to provide WAV service. The following criteria must be met for the trip to be eligible for the reimbursement subsidy:

1. The TNC WAV trip must be requested through its affiliated TNC platform specifically for wheelchair accessible vehicle service;
2. The TNC WAV trip must be performed by an affiliated transportation network driver licensed and qualified in compliance with Chapter 9-115 of the Municipal Code of Chicago;
3. The TNC WAV vehicle used to perform the trip must be in compliance with Chapter 9-115 of the MCC;
4. If the TNC WAV trip is contracted through a contractor, the contractor must be in compliance and in good standing with applicable City of Chicago laws, including compliance with City of Chicago debt; and
5. Trip data of the TNC WAV trip must be submitted with the reimbursement request.

Key Findings

- Chicago's legislation encourages TNCs to be more accessible in some ways, like requiring accessible digital platforms, but originally did not provide incentives for TNCs to provide wheelchair accessible service. Instead, the fees collected into the Accessibility Fund supported accessibility of taxis.

- Approximately $9 million collected between January 2016 and June 2019 supported the addition of 170 accessible taxicabs to the citywide taxi fleet, established a centralized WAV Taxicab Dispatch, and provided accessible vehicle subsidies and maintenance incentives for taxicab drivers.
- TNCs are required to report specific data which aid the city in monitoring the status of how accessible TNC fleets are to wheelchair users. However, TNCs do not have specific compliance goals or benchmarks.
- In November 2018, the City introduced a new pilot program that hopes to further increase the number of WAV trips provided by TNCs. The pilot program is funded through the Accessibility Fund and provides a $15 reimbursement incentive to TNC companies to provide WAV service.

Key Learnings from Case Studies

1. **Wheelchair accessible services are more expensive to operate.** The cost for accessible services in ramp and lift-equipped vehicles will always be greater than the cost of providing sedan service. These costs include a higher initial cost to purchase or modify an accessible vehicle, increased operating and maintenance costs such as added fuel and longer deadheading, additional maintenance costs for larger and more sophisticated vehicles, and the additional time it takes drivers to perform these trips. The services have the best chance for success with a policy commitment to accessibility and a dedicated funding source. Many jurisdictions have required a surcharge to target funds for the provision of wheelchair accessible service.

2. **Riders of all abilities want options.** Riders with disabilities, like the general public, want to have choices. For example, bus service may work well for a disabled person's trips to work and school, but they may want to use a taxi or TNC on an evening after a movie. Riders also want to choose whether to pay less by sharing a ride or to spend more to go directly to their destination.
3. **Targeted training is required.** Training drivers of wheelchair accessible vehicles is crucial to smooth and safe operations. Drivers need to be comfortable with the securement systems and tie-downs, as well as different types of mobility devices. Drivers should also be well versed on the common needs of persons with different types of disabilities. Finally, drivers must know that riders with disabilities are the experts on their needs.
4. **Data sharing is necessary to allow monitoring and ensure compliance.** Without publicly available data, it is difficult to assess the effectiveness of a partnership, incentive program, or regulation. If a program or regulation sets benchmarks for accessible service, TNCs should have an obligation to make data publicly available to confirm whether or not service standards and response time targets are being met.

Policy Options and Future Considerations

The purpose of the Policy Options section of this report is to provide guidance to policy and decision makers within both the public and private spheres, in ways that each sector can individually contribute towards improving disabled access and through collaboration.

We believe that the recommendations below could provide benefits, not just to the persons with disabilities who will have better access to on-demand transportation services, but also TNCs and public entities interested in providing better mobility to people of all abilities.

Policy options are organized according to the key stakeholders – the Public Sector, TNCs, and Cross-Sector Collaboration.

Policy Options for the Public Sector

1. Focus on the Implementation of SB 1376: TNC Access for All Act (Hill)

- **Require TNCs to provide equivalent service in all areas where TNCs currently operate.** The CPUC should heed the state legislature's directive to provide "TNC Access for All" by ensuring that any new regulations apply to the entire state. TNCs should be required to provide comparable or equivalent service in an area where they are providing service in sedans and other vehicles not accessible to wheelchairs. The CPUC should be thoughtful of how geographic service areas are determined regarding both fee collection and the distribution of funds in the TNC Access for All Fund. Service area divisions should not allow or encourage TNCs to cherry-pick or focus

solely on particular markets and leave other access providers to fill the gaps in harder to serve markets. It is understood that response times in urban areas may be significantly quicker than in rural or suburban areas just as they are for the general public user and the target service standards would reflect that difference. Therefore, service equivalence must be assessed within relevant service areas and not statewide.

- **Ensure that Accessibility Plans submitted by TNCs as part of the existing CPUC permitting process are updated, are made publicly available, and include plans for training drivers on wheelchair securement.** The CPUC should compel TNCs to update outdated Accessibility Plans. The plans should be publicly available for review and comment during workshops and working group meetings related to SB 1376 implementation. These updates should address how the TNCs will comply with SB 1376, how WAV drivers will be trained in wheelchair securement, and include a timeline and milestones for achieving the benchmarks established during the CPUC's updated rulemaking.
- **Require TNCs to include response times within trip level data required by the CPUC in order to establish benchmarks for equivalent service for wheelchair users.** The CPUC already collects a large amount of data from TNCs. In order to implement SB 1376 and set expectations for what is considered equal access for riders who require WAVS, CPUC should revise requirements to include response times. Using these data, the CPUC can share zip code-level findings to inform a thoughtful regulatory development process that reflects the current reality of TNC level of service. Statewide service data would obscure differences in service to the general public and wheelchair users. Like New York City's Taxi and Limousine Commission, the

CPUC could analyze existing response times to set a goal, with benchmarks that incrementally move towards service that is equivalent to general public TNC trips.

- **Refine TNC reporting requirements so that they are sufficient to implement SB 1376.** Data collected from TNCs need to clearly support whether they are providing the same or comparable levels of access to disabled persons as they are to persons without disabilities. According to analysis by the Transportation Authority, of the 17 data items required to implement Senate Bill 1376, only 4 could be potentially be derived from the data in the CPUC's proposed data reporting requirements, and thus the current proposed data reporting requirements are insufficient to implement Senate Bill 1376. The necessary reporting requirements are summarized in Appendix D.
- **Increase transparency by making all data on accessibility submitted by TNCs to the CPUC publicly available for review and analysis.** Since fees mandated by Senate Bill 1376 will be collected from the public, the public will need assurance that the fund is monitored, that TNCs are complying with requirements, and that the money is expended appropriately.

- **Clarify and/or develop an improved framework or mechanism for riders to provide input on TNC service performance and ensure that the processes are effective in addressing serious allegations, especially related to discrimination, driver conduct, and user safety.** Riders with disabilities have reported a disinclination towards utilizing TNCs based on a lack of accommodations which are technically required and should be provided, such as accommodating service animals. Consumer complaints on these concerns are currently routed directly to the respective TNC and are subsequently self-reported to the TNC and made available in limited detail to the public. A more transparent process would help to improve public trust and accessibility.
- **Establish additional consumer protection requirements that consider the needs of people with disabilities.** These protections should, at a minimum, include mechanisms to ensure all TNC drivers are trained to proficiency, as required by the ADA. Additional actions to protect consumers with disabilities include training on disability awareness and sensitivity and requirements that prevent drivers from rating a rider based on disability.
- **Commit some of the CPUC's 0.25% gross revenues fee to staffing or consultants focused on improving disabled access.** The CPUC collects a gross revenue fee that is assessed to gross receipts of TNCs. These funds are intended to ensure proper enforcement of CPUC regulations regarding TNCs. A recent decision reduced the fee amount, indicating that a surplus of revenue was being collected but not adequately expended. While the exact amount of revenue is unknown, it is estimated that an excess of $2 million dollars was collected in San Francisco alone. The CPUC and the State Legislature should consider not only using the money to hire more personnel to enforce the regulations but also either hire more staff with a background in accessible transportation or pay a consultant with similar expertise to assist with implementing SB 1376 and increasing general accessibility of TNCs.

2. Leverage the expertise of local agencies and consumers to implement and enforce strengthened regulations.

- **Establish an ongoing advisory body, outside of SB1376's implementation, to actively solicit input from the disabled community.** Riders with disabilities offer a unique and indispensable perspective that should be considered at every stage of planning and implementation, including the monitoring process. By understanding consumers' first-hand experiences traveling with a disability, the CPUC will be able to assess the effectiveness of its accessibility rules and guidelines and use both quantitative and qualitative data to inform any needed changes.
- **Authorize local regulation of Transportation Network Companies, which would allow local jurisdictions to more effectively improve access and safety for persons with disabilities.** Allowing local jurisdictions to regulate TNCs would allow the City to more effectively manage traffic flow, reduce crashes, and improve safety and access for bicyclists and pedestrians, especially populations like people with disabilities, who are more at-risk for severe or fatal traffic injuries. If given local regulatory authority, the City could require TNCs to effectively manage safe pick-ups, drop-offs, educate drivers on safety and disability, as it requires of taxi drivers, and ensure a safe and accessible fleet.

- **Consider dedicating funding from any surcharges on TNC trips to support safety improvements that will mitigate negative impacts of TNCs at the curb and in the street, particularly at accessible loading zones and curb ramps.** An increase in vehicle miles traveled increases the risk for collisions with people with disabilities. Safety improvements should make San Francisco streets safe for all users, especially older adults and people with disabilities who are disproportionately killed in traffic crashes.

Policy Options for Transportation Network Companies

Transportation Network Companies have articulated visions and values in line with what the City and County of San Francisco have established in our Guiding Principles for Emerging Mobility Services and Technologies. For example, Uber's first core value is, "We do the right thing, period." Lyft also says they "see the future as community-driven – and it starts with you." The policy options articulated below provide Transportation Network Companies with guidance on how they may improve upon their current efforts to meet these values and improve the user experience for persons with disabilities.

Improve disabled representation, especially in the decision-making process.

- Seek staff, board members and/or advisors with disabilities, especially those who have knowledge and understanding of Code of Federal Regulations (CFR) and their rights and responsibilities under the Americans with Disabilities Act (ADA).
- Participate in disabled or senior committees/ organizations.
- Institutionalize outreach to the disability community as part of planning and scoping of projects.
- Include disabled access as part of the organization's Strategic Plan.

Make changes to the service model to better accommodate needs of all riders.

- Offer incentives to private owners of accessible vehicles to encourage them to provide services. Incentives could be purely financial or could be operational (e.g., the app could be programmed to send more rides to drivers in accessible vehicles).
- Incorporate wheelchair accessible vehicles into vehicle pools of programs such as Lyft's Express Drive program, which provide potential drivers with vehicles. Drivers should also receive training on wheelchair securement.
- Incorporate training on how to interact with customers with disabilities into required onboarding materials, rather than offering it as a separate optional video/resource. Ensure passengers with service animals are accommodated, as required by the ADA.
- Always direct customers to the safest pick up locations in their vicinity and should discourage loading in areas that put pedestrians, cyclists and other street users at risk..
- Provide an in-app option for riders to optionally identify access other needs (such as "I am Deaf, Hard of Hearing." etc.). This feature is technically required of TNCs in California by the CPUC.
- Require drivers to provide additional details regarding the passenger experience, such as if the vehicle and driver is non-scented, non-smoker, etc.
- Provide a telephone concierge service to riders who require assistance booking over the phone.
- Identify and market payment alternatives, such as pre-paid debit cards, or payment collection services, like PayNearMe, that provide riders with alternatives that accept cash.

- Make it possible for customers to flag whether their comment/feedback is related to an ADA or disability issue and/or make it possible for staff to filter comments for those topics. Periodically review ADA/disability related feedback to identify opportunities for improvement in that area.
- If a TNC's future plans involve autonomous driving systems (ADS), their Accessibility Plan should include working toward universally accessible autonomous vehicles. If the TNC industry moves toward ADS, that development should alleviate the wheelchair accessibility challenges now facing TNCs, not exacerbate them.
- Improve the apps for blind users so that information on the trajectory of the arriving vehicle that is displayed visually on the map for sighted users is relayed to the customer verbally so they know what direction the vehicle is traveling from and where they are likely to get picked up.
- Ensure no additional fees are charged for extra time needed to board or exit the vehicle due to a disability.

Policy Options for Cross-Sector Collaboration and Partnership

There are also opportunities for public, private, and non-profit entities to work together across sectors to improve access for riders with disabilities.

- Transportation Network Companies in San Francisco should pursue (or in Uber's case, continue to pursue) partnerships with existing providers operating accessible vehicles.
- The CPUC should explore ways to connect TNCs with partner organizations to improve driver training on disability sensitivity and wheelchair securement.
- Taxi companies that operate accessible vehicles should explore establishing a centralized accessible dispatch program and consider allowing Uber and Lyft to submit trip requests to the centralized dispatch.
- If Uber and Lyft, or any other TNCs that choose to operate in San Francisco, consider offering services to or in partnership with City agencies, they should first consider how they will address and satisfy ADA, Title VI, data reporting, and other federal and state requirements.

Future Considerations

As the landscape of transportation continues to evolve, the impact of TNCs on riders with disabilities will change as well. This is especially true for the possible introduction of autonomous vehicles into TNC fleets. The City should keep a close eye on the automobile manufacturing industry to understand opportunities for expanding the physical accessibility of vehicles and work with service providers and regulators to ensure riders with disabilities are provided reasonable accommodations to be able to access, schedule, pay for, and use these emerging services.

Additionally, changes to federal policy and interpretation will mold the types of partnerships that are possible between TNCs, transit agencies, and even healthcare providers. The City and TNCs should pay particularly close attention to how the federal and state government determines the ADA applies to emerging mobility companies, the parameters under which public transit agencies can partner with TNCs, and the modes of transportation which are covered and reimbursed under Medicaid rules.

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Appendix A – Analysis of Federal Accessibility Requirements

Provisions of the ADA that apply to Private Entities Primarily Providing Transportation	ADA Compliant Practices	Practices that may be inconsistent with the ADA
Non-Discrimination Provisions		
TNCs cannot prevent a person with a disability from using the service. § 37.5(b)	Both Uber and Lyft have adopted zero tolerance non-discrimination policies. Both Lyft and Uber encourage "high acceptance rates" to foster the best responsiveness for all requesters. TNCs must report requests that were not accepted along with the reason or explanation for the ride not being accepted.	Data on denied requests is not reported publicly nor is it known if the CPUC is auditing denials to individuals with disabilities to ensure non-discrimination. User accounts of disabled riders may be discriminatorily blocked or deactivated.
TNCs may not impose special charges (extra fees) on individual with disabilities. § 37.5(d)	TNCs are currently offering WAV services at the same fares charged for the same ride in a non-accessible vehicle.	Riders who use non-foldable mobility devices cannot take advantage of Uber or Lyft's more affordable shared ride services (Uber Pool or Lyft Shared). Fares for users requesting larger vehicles to accommodate stroring a mobility device are higher than fares for other trips. Additionally, fares can include wait time and time for loading and unloading, which may take longer with a mobility device.
TNCs must reserve designated priority seating but not require use of designated priority seating. § 37.5(c)	Riders are guaranteed a seat when their ride request is accepted.	
Service Animals (49 C.F.R. §§ 37.3 & 37.167(d))		
Service animals may accompany passengers in TNCs. Service animals are animals that are individually trained to perform tasks for people with disabilities.	TNCs require drivers not to discriminate against riders with service animals in their Terms and Conditions.	The most disability-related common complaint reported by TNCs to the CPUC is the denial of service animals.
Training Requirements (49 C.F.R. § 37.173)		
TNCs shall ensure that personnel are trained to proficiency, as appropriate to their duties, so that they operate vehicles and equipment safely and properly assist and treat individuals with disabilities who use the service in a respectful and courteous way, with appropriate attention to differences among individuals with disabilities.		The Driver Training plans filed with the CPUC do not provide guidance for all personnel to be trained to proficiency in serving customers with disabilities in relation to their duties.
Responsible Person and Complaint Procedures (49 C.F.R. § 37.17 – Effective July 2015)		
Each provider must designate at least one person to comply with the DOT requirements.	TNCs employ Compliance Officers.	It is unclear to what extent Compliance Officers are involved with complying to DOT requirements regarding accessibility.
Each provider shall adopt complaint procedures that incorporate due process standards.	Complaints can be made online or in a TNC app.	Complaint procedures for individual TNCs are vague and the CPUC does not currently provide an avenue for consumers to file complaints about TNCs.
TNCs should provide prompt equitable resolution of complaints.	TNC platforms have increased the possibility for rider-driver communication both before and during the ride. TNCs are required to provide an annual report on disability-related complaints to the CPUC.	Annual reports on disability-related complaints do not provide detail on how quickly complaints are resolved. The CPUC's separate Passenger Complaint Form is difficult to find and it is unclear how many complaints and of what nature the CPUC receives on TNCs and accessibility.

Appendix A – Analysis of Federal Accessibility Requirements

Provisions of the ADA that apply to Private Entities Primarily Providing Transportation	ADA compliant practices	Practices that may be inconsistent with the ADA
Maintenance of Accessible Features (49 C.F.R. § 37.161)		
Lifts/ramps, securement devices, elevators, signage, and public address systems must be maintained and must be repaired promptly. (Isolated or temporary interruptions due to repair or maintenance are not prohibited.)	California law requires that TNC vehicles be inspected every year or 50,000 miles.	The Vehicle Inspection form does not refer to the condition of accessible features like lifts or ramps. Ongoing maintenance and repairs are not documented with the TNC. Data on fleet maintenance are not available to the public.
If accessible features are not functioning, the TNC must take reasonable steps to accommodate persons with disabilities who would otherwise use the feature.		Neither company has published a reasonable accommodation policy. Lyft "Access Mode" redirects a rider in need of an accessible vehicle to a list of public and private transportation companies.
Other Service Requirements (49 C.F.R. § 37.167)		
TNCs must ensure that operators make use of accessibility-related equipment and features.		According to the CPUC, a passenger should be allowed to state access needs, either from a drop-down menu with room for comments or through a field requesting information. This feature has not been implemented on either Uber or Lyft's app.
TNCs must provide adequate information regarding transportation services, and the information must be made available through accessible formats.	Features like VoiceOver iOS, Android TalkBack, and wireless braille display compatibility have made TNCs more accessible to persons who are blind.	There is room for improvement, especially communicating the location of a vehicle while it is in route to its pickup or drop off.
Persons using a lift must be allowed to exit at any stop, unless it would damage the lift or there are temporary conditions precluding anyone's use of the stop.	As a door to door service, TNCs generally provide this convenience.	Additional training is required on how to accommodate the requests of the individual, whether drivers can do so safely, and where is best to deploy their ramps.
TNCs must ensure adequate time allowed to board/disembark.		Both Uber and Lyft have a policy about wait time. When the driver pulls up to the pick-up location, they must swipe to say they have arrived. Then, there is a timer (varies by company) on how long the driver should wait before they are allowed to cancel the ride, which can incur a fee to the rider. The time allowed for "wait" is shorter for pooled trips than for regular solo hails.

Appendix B – Analysis of CPUC Accessibility Requirements

The following charts analyze the extent to which Uber and Lyft, the two highest service volume TNCs in San Francisco, are complying with the accessibility requirements established by the CPUC's permitting process. We have also provided notes on the contents of these reports and how complete the responses provided are. The first chart describes the reports and plans TNCs must submit to receive a TNC permit from the CPUC. The second chart describes the annual reports and updates TNCs must submit to the CPUC to maintain/renew a permit.

Accessibility-Related Requirements to Apply for a TNC Permit	Uber	Lyft	Notes
1. Accessibility Plan ***Required within 45 days of the decision*** a. A timeline for modifying apps so that they allow passengers to indicate their access needs, including but not limited to the need for a wheelchair accessible vehicle. A passenger should be allowed to state other access needs, either from a drop-down menu with room for comments or through a field requesting information. b. A plan for how the TNC will work to provide appropriate vehicles for passengers who specify access needs, including but not limited to a plan to provide incentive to individuals with accessible vehicles to become TNC drivers. c. A timeline for modifying apps and TNC websites so that they meet accessibility standards. The relevant standard for web access is WCAG 2.0 AA. d. A timeline for modifying apps so that they allow passengers to indicate that they are accompanied by a service animal, and for adopting a policy that service animals will be accommodated. e. A plan for ensuring that drivers' review of customers will not be used in a manner that results in discrimination, including any policies that will be adopted and any monitoring that will take place by the TNC to enforce this requirement.	✓ (submitted in 2013)	✓ (submitted in 2013)	Limited information can be gleaned from these Accessibility Plans because much of what was reported in 2013 was planned activities that are now either complete or no longer applicable. Furthermore, some required components were never thoroughly addressed in original submissions (e.g., plan to provide incentive to individuals with accessible vehicles to become TNC drivers). Uber initially received a permit from the TNC under "Rasier Technologies." In late 2018, the company reapplied for a TNC permit with the CPUC as "Uber Technologies." At this time the company submitted a new Accessibility Plan, submitting it as confidential and under seal. CPUC staff reported to SFMTA that they are unable to share the new plan. The Uber Accessibility plan available on the CPUC's website is the initial 2013 plan. **Reports are available at** http://www.cpuc.ca.gov/tncapps/
2. Plan on Avoiding the Divide Between Able and Disabled Communities ***Required within 90 days of the decision*** • TNCs must explain how they plan to provide incentives to individuals with accessible vehicles to become TNC drivers. • TNCs should ensure accessibility accommodations for their apps and websites to enable the disabled public access to the same services as clients who are not disabled.	✓ (submitted in 2013)	✓ (submitted in 2013)	Uber and Lyft submitted these plans but they are incomplete according to the information requested by the CPUC. Both plans briefly address how TNCs plan to ensure accessibility accommodating in their apps but not in their websites. Lyft's plan does not address how the company will provide incentives to individuals with accessible vehicles to become TNC drivers. Uber's plan states that in 2012, the company "reached out to a paratransit company in San Francisco to discuss the possibility of the company's drivers using the Uber App to accept requests for transportation services from users who require accessible vehicles. Although that conversation did not ultimately result in the company's use of the App, Rasier plans to reach out to similar transportation companies about the possibility of their using the App to provide accessible transportation to users. Rasier believes these paratransit companies will be incentivized to use the App to provide accessible transportation in order to generate a significant number of new leads to users who will pay for transportation from these companies." **Reports are available at** http://www.cpuc.ca.gov/tncapps/

Accessibility-Related Requirements to Apply for a TNC Permit	Uber	Lyft	Notes
3. Driver Training Program TNCs must ensure all drivers are safely operating their vehicle prior to the driver being able to offer service.	✓ (submitted in 2013)	✓ (submitted in 2013)	The reports provided by Uber and Lyft both include two columns: "date" and "alleged transportation service issue." Reporting on specific incidents is not uniform. For example, under alleged transportation service issues, Lyft only lists "Wheelchair Refusal" or "Service Animal Refusal." Uber's report labels incidents as "Protected Trait Denial", "Service Animal Denial", "Assistive Device Denial" "Emotional Support/Therapy Animal Denial" or simply "Service Denial" without more context. Neither report provides information on the investigation or resolution of the complaints. **Reports are available at** http://www.cpuc.ca.gov/tncapps/
4. Accessible Request Feature Allow passengers to indicate whether they require a wheelchair-accessible vehicle or a vehicle otherwise accessible to individuals with disabilities.	✓ (referenced in 2013 Accessibility plan)	✓ (referenced in 2013 Accessibility plan)	Both companies reference this feature in their 2013 Accessibility Plans. Lyft also indicated that they would allow drivers to indicate whether they welcomed passengers with service animals/riders to indicate whether they are traveling with a service "dog."

Appendix B – Analysis of CPUC Accessibility Requirements

Accessibility-Related Requirements to Maintain a TNC Permit	Uber (Raiser, LLC)	Lyft	Notes
1. Report on Providing Accessible Vehicles Upon receipt this report shall be made public by the Safety and Enforcement Division. • Number of hours an accessible vehicle is available per month • Number of accessible vehicles • Total number of customer requests for accessible vehicles • Total percentage of customer requests for accessible vehicles • Total number of fulfilled accessible vehicle requests • Percent of completed access requests	√-	√-	The CPUC only publishes high level data, including rounded totals. In both Lyft and Uber reports, columns for "Number of hours an accessible vehicle is available per month" and "Number of accessible vehicles" are currently listed as "N/A." **See Appendix C for the most recent reports available on the CPUC website.** **The reports with rounded totals are also available at** http://www.cpuc.ca.gov/tncapps/
2. Report on Providing Service by Zip Code Date, time and zip code of request. If denied, an explanation of why the ride was not accepted.	√-	√-	The last analysis publicly available on the CPUC website is from 2014 and 2015 submissions and aggregates all reporting TNCs. **The analysis is available at:** http://www.cpuc.ca.gov/uploadedFiles/CPUC_Website/Content/Safety/Presentations_for_Commission_Meeting/2840_PowerPointforthe11515Meeting.pdf
3. Reports on Problems with Drivers This report shall contain a description of any instances or complaints of unfair treatment or discrimination of persons with disabilities.	√-	√-	Uber report does not include outcomes of investigations. Lyft's most recent filing only includes six complaints, with the most recent complaint dated January 2017.
4. Updates to Accessibility Plan Each aspect of the accessibility plan will be addressed in the annual reports required of each TNC regarding compliance, necessary improvements (if any) and additional steps to be taken by the TNC to ensure that there is no divide between service provided to the able and disabled communities. (See 1 a-e in the table above).	X	X	No updates have been made available on CPUC website or have been filed with service list. Other annual reports filed publicly/ to service list do not encompass all aspects of the Accessibility Plan (points a- e). While Uber was required to submit a new Accessibility Plan to receive a permit as Uber Technologies, it was filed confidentially under seal and is not available on the CPUC website.

Appendix C – TNC Accessibility Reports

Uber Accessibility Report to CPUC (Publicly Available), State of CA, 2015-2017

Year/Quarter	Number of Hours an Accessible Vehicle is Available per Month	Number of Accessible Vehicles	Total Number of Customer Requests for Accessible Vehicles	Total Percentage (%) of Customer Rides with Accessible Vehicles	Total Number of fulfilled Accessible Vehicle Requests	Percentage of (%) of Completed Access Requests
2015/Q1	N/A	N/A	11,000	0.06%	7,000	64.01%
2015/Q2	N/A	N/A	11,000	0.04%	7,000	63.29%
2015/Q3	N/A	N/A	44,000	0.14%	23,000	53.56%
2015/Q4	N/A	N/A	43,000	0.13%	25,000	59.31%
2016/Q1	N/A	N/A	29,000	0.08%	17,000	59.33%
2016/Q2	N/A	N/A	26,000	0.06%	14,000	56.70%
2016/Q3	N/A	N/A	33,000	0.06%	20,000	60.51%
2016/Q4	N/A	N/A	62,000	0.10%	44,000	71.28%
2017/Q1	N/A	N/A	42,000	0.07%	33,000	77.59%
2017/Q2	N/A	N/A	42,000	0.07%	33,000	78.59%
2017/Q3	N/A	N/A	41,000	0.06%	34,000	81.54%
2017/Q4	N/A	N/A	38,000	0.06%	31,000	81.03%
2018/Q1	N/A	N/A	39,000	0.06%	32,000	81.60%
2018/Q2	N/A	N/A	41,000	0.06%	34,000	82.35%
2018/Q3	N/A	N/A	28,000	0.06%	24,000	83.75%

Note: Numbers 1,001 - 100,000 rounded to nearest 1,000. 2017/Q3'17 only includes data for July and August 2017. Data for September 2017 will be included in the 2018 report submission. Q4 will be submitted with the 2018 accessibility report. Source: http://www.cpuc.ca.gov/General.aspx?id=3046

Lyft Accessibility Report to CPUC (Publicly Available), State of CA, 2015-2017

Year/Quarter	Number of Hours an Accessible Vehicle is Available per Month	Number of Accessible Vehicles	Total Number of Customer Requests for Accessible Vehicles	Total Percentage (%) of Customer Rides with Accessible Vehicles	Total Number of fulfilled Accessible Vehicle Requests	Percentage of (%) of Completed Access Requests
2015/Q1	N/A	N/A	600	0.01%	600	95.07%
2015/Q2	N/A	N/A	1,000	0.03%	1,000	88.79%
2015/Q3	N/A	N/A	2,000	0.04%	2,000	93.66%
2015/Q4	N/A	N/A	5,000	0.05%	5,000	96.29%
2016/Q1	N/A	N/A	5,000	0.04%	5,000	96.51%
2016/Q2	N/A	N/A	4,000	0.03%	4,000	97.00%
2016/Q3	N/A	N/A	4,000	0.03%	4,000	96.23%
2016/Q4	N/A	N/A	8,000	0.04%	8,000	96.45%
2017/Q1	N/A	N/A	8,000	0.04%	8,000	96.99%
2017/Q2	N/A	N/A	7,000	0.03%	7,000	96.68%
2017/Q3	N/A	N/A	6,000	0.02%	6,000	95.45%
2017/Q4	N/A	N/A	9,000	0.03%	9,000	96.95%
2018/Q1	N/A	N/A	9,000	0.03%	9,000	96.57%
2018/Q2	N/A	N/A	8,000	0.02%	8,000	97.14%
2018/Q3*	N/A	N/A	3,000	0.01%	2,000	96.78%

Note: Numbers 101 - 1,000 rounded to nearest 100; numbers 1,001 - 100,000 rounded to nearest 1,000. 2017/Q4 will be submitted with the 2018 accessibility report. Source: http://www.cpuc.ca.gov/General.aspx?id=3046

*Q3'18 only includes data for July and August 2018. Data for September 2018 will be included in the 2019 report submission.

*Lyft introduced the "Access Mode" feature to the Lyft app in August 2014. The Lyft app allows passengers with accessibility needs to enable Access Mode. In certain markets, when Access Mode is enabled, passengers may request a vehicle that is specially outfitted to accommodate wheelchairs. In markets where those vehicles are not available, information regarding local services will be sent directly to the passenger via text message when the ride is requested

Appendix D – Sufficiency of CPUC's Proposed Data Reporting Requirements to Implement SB 1376: TNC Access for All Act (Hill)

This table is excerpted from the comments of San Francisco County Transportation Authority to the California Public Utilities Commission's ruling seeking comments on proposed data reporting requirements of rulemaking 12-12-011.

CPUC's Proposed Data Reporting Requirements for Regulating TNCs ▶ / **Data needed for SB1376 Implementation ▼**	Total quarterly vehicle miles traveled during Period 3 of passenger service by all vehicles, when the passenger is in the vehicle and until the passenger exits the vehicle.	Total quarterly vehicle miles traveled during passenger service that are served by electric vehicles or other vehicles not using an internal combustion engine.	Total quarterly vehicle miles traveled during Periods 1 and 2 of passenger service, when the app is open and driver is waiting for a match, and when a match is accepted and the driver proceeds to pick up the passenger, expressed in miles.	Amount of time each vehicle waits between ending one passenger trip and initiating the next passenger trip, expressed as both a daily average and monthly total in hours or fraction of hours (idling or dwell time).	Vehicle occupancy (total number of passengers).	Total number of accessible rides requested per quarter that are fulfilled.	Total number of accessible rides requested per quarter that are unfulfilled because of a lack of accessible vehicles.	Total number of accessible rides requested per quarter that are declined by the driver.	**Is CPUC proposed data reporting requirement sufficient?**
CPUC's Proposed Data Reporting Requirements for Regulating TNCs						X[1]	X[1]	X[1]	**Yes**
Supply of WAV by geographic area									**No**
TNC trips by geographic area									**No**
Level of WAV service									**No**
Cost of providing adequate WAV service									No
Presence of drivers with WAVs by geographic area									**No**
Availability of drivers with WAVs by geographic area									**No**
WAV Level of service by geographic area prior to investments by quarter									**No**
WAV Level of service by geographic area after investments by quarter									**No**
Number of WAV trips with response times meeting time, by geographic area									**No**

	Total quarterly vehicle miles traveled during Period 3 of passenger service by all vehicles, when the passenger is in the vehicle and until the passenger exits the vehicle.	Total quarterly vehicle miles traveled during passenger service that are served by electric vehicles or other vehicles not using an internal combustion engine.	Total quarterly vehicle miles traveled during Periods 1 and 2 of passenger service, when the app is open and driver is waiting for a match, and when a match is accepted and the driver proceeds to pick up the passenger, expressed in miles.	Amount of time each vehicle waits between ending one passenger trip and initiating the next passenger trip, expressed as both a daily average and monthly total in hours or fraction of hours (idling or dwell time).	Vehicle occupancy (total number of passengers).	Total number of accessible rides requested per quarter that are fulfilled.	Total number of accessible rides requested per quarter that are unfulfilled because of a lack of accessible vehicles.	Total number of accessible rides requested per quarter that are declined by the driver.	**Is CPUC proposed data reporting requirement sufficient?**
Number of WAV trips with response times *not* meeting time established by the commission by geographic area									**No**
Number of WAV rides requested by geographic area						X[1]	X[1]	X[1]	**Yes**
Number of WAV rides fulfilled by geographic area						X[1]			**Yes**
Disaggregate fulfilled WAV ride records with request time and arrival time									**No**
WAV response times, by geographic area									**No**
Percentage of WAV trip requests fulfilled, by geographic area						X[1]			**Yes**
Number of users requesting WAV rides, by geographic area									No

[1]Table A data may satisfy this data requirement, contingent on data being provided by geographic subarea.