This background paper prepares the members of the Senate Governance & Finance Committee and the Assembly Transportation Committee for the November 4, 2019, informational hearing titled “Staying in their lane: How should the state and local governments regulate new mobility options in the sharing economy?” Through this hearing, the Committees will explore the balance between state and local regulations on shared mobility devices—such as motorized scooters and power-assist bicycles—including considerations of which areas of shared mobility regulation are ripe for state standards and which areas should be left up to local discretion. A second hearing, focused on the types of data on shared mobility devices that local governments can require companies to provide, and the uses of that data, will be held in early 2020.

At the November 4th hearing, the Committees will first receive a summary of current information on usage and impacts of shared mobility devices from an expert at the University of California, Los Angeles (UCLA) Institute of Transportation Studies. The second panel will provide a look back at the state’s last significant change in transportation modes—transportation network companies (TNCs)—and review the effects of the current state regulatory framework has had on local governments. It will also identify lessons learned that can be used to inform policymaking on shared mobility devices. The third panel will provide the Committees the opportunity to hear directly from local governments about the varied policies they have adopted to encourage the safe and equitable use of shared mobility devices within their jurisdictions. Finally, the Committees will hear from stakeholders with an interest in shared mobility devices, including 2 representatives of the industry and the Consumer Attorneys of California to discuss the impacts of local regulation and any additional needs.
This background paper:

- Provides brief background on how TNCs are regulated;
- Describes the types of shared mobility devices and trends in their use and characterizes some of their impacts on local governments; and
- Summarizes shared mobility device regulation to date and legislation relevant to these devices.

Regulation of TNCs

State Regulation of TNCs. The California Constitution establishes the California Public Utilities Commission (CPUC) and grants it the authority to regulate public utilities. In addition, the CPUC has more limited authority over other corporations, including railroads, rail transit, and charter-party carriers, among others. Charter-party carriers are companies that transport people for compensation. These include limousines and charter buses, but exclude taxis and municipal buses.

Beginning as early as 2010, a new model for providing transportation services, known as a Transportation Network Company (TNC), allowed patrons to prearrange transportation services through an app on their smartphone or computer. These companies, including popular services like Uber and Lyft, allow passengers to hail drivers that use their personal vehicles to provide transportation services.

Although TNCs bear some differences from traditional charter-party carriers, the CPUC concluded in 2010 that TNCs fall under its existing jurisdiction over such services because TNCs are transporting passengers for compensation. With the rising popularity of Uber and Lyft in California, in 2013 the CPUC created a set of regulations geared toward the company’s new model of allowing drivers to use their personal vehicles for transportation-for-hire purposes. The CPUC regulations created 28 rules for TNCs, including rules to: require the companies, but not the drivers, to obtain a license from the CPUC to operate in California; require each driver to undergo a criminal background check; and require TNCs to establish a driver training program, conduct a 19-point car inspection, implement a zero-tolerance policy on drugs and alcohol, and hold a commercial liability insurance policy. The CPUC also requires TNCs to submit reports regarding accessibility, ride details, zero tolerance complaints and collisions, and miles and hours spent driving.

In addition to the CPUC’s regulations, state law also regulates limited aspects of TNCs. In 2014, the Legislature passed AB 2293 (Bonilla), which created statutory definitions for drivers and 3 TNCs and established guidelines for insurance coverage. AB 2293 also prohibited TNCs from disclosing passenger travel records to third parties without the consent of the passenger. While the primary impetus of AB 2293 was an effort by the insurance industry to strengthen insurance requirements for TNC drivers, it also became the first piece of legislation to codify the CPUC classification for Uber and Lyft as a TNC, settling a legal disagreement with taxicab companies.
over whether the CPUC or cities and counties can regulate TNCs. Other significant TNC legislation includes:

- **SB 182** (Bradford, 2017) allows TNC drivers to operate statewide with only a single business license from their home city or county, after some cities began requiring business licenses of TNC drivers that operate in their jurisdictions. SB 182 made it easier for drivers to cross jurisdictional boundaries and to operate in multiple cities, based on rider demand. However, it also limited the ability of local governments to regulate TNCs as they do other businesses and taxicabs.

- **SB 1014** (Skinner, 2018) requires the CPUC, in consultation with California Air Resources Board and the California Energy Commission, to establish the California Clean Miles Standard and Incentive Program to increase the use of zero-emission vehicles by TNCs. SB 1014 allows the state to set greenhouse gas reduction goals for TNCs instead of relying on a patchwork of regulatory requirements at the city and county level.

- The **“TNC Access for All Act” (SB 1376, Hill, 2018)** directed the CPUC to establish a program in a new or existing proceeding relating to accessibility for persons with disabilities. The CPUC established a surcharge on TNC trips to fund deployment of wheelchair accessible vehicles in TNC fleets.

**Limits on Local Regulation.** Traditional taxi regulations across the state and country have had a basic framework: taxi companies and their drivers require a permit or medallion from a city or county to operate within its jurisdiction, with a cap on the number of medallions or permits. These caps serve several purposes. First, they allow cities to control how many vehicles are on the road that provide transportation services for hire, helping them both reduce congestion and vehicle miles traveled. Second, the caps, combined with the ability of local jurisdictions to set standard rates, help improve the likelihood that both the companies operating the taxi cabs and the drivers themselves make a profit, while also ensuring fair pricing for users.

Because regulatory authority over TNCs lies with the CPUC, cities and counties have limited ability to impose requirements on TNCs to ensure that certain policy goals are met, such as to:

- **Ensure the adequacy of driver wages.** For example, a 2018 study on TNC drivers in New York City found that 85% of drivers were earning less than minimum wage after expenses and that driver income was decreasing over time. In response, New York City instituted procedures to ensure that drivers earn the minimum wage.

- **Reduce congestion by controlling the number of vehicles in their jurisdiction.** For example, a 2018 analysis by the San Francisco County Transportation Authority found that TNCs accounted for approximately 50% of the rise in congestion in San Francisco between 2010 and 2016. Because San Francisco cannot limit the number of TNCs on their roads, the city has instead opted to tax TNC trips to reduce congestion. **AB 1184 (Ting, 2018)** authorizes San Francisco to place a measure on the ballot to tax each TNC trip at 3.25% for individual trips, and 1.5% for pooled (shared) trips. This measure is set for the November 5, 2019 election.
• **Ensure proper driver conduct.** Without the ability to require TNC drivers to be licensed and the ability to take administrative action against bad drivers, cities and counties do not have an administrative avenue to sanction drivers based on consumer complaints.

• **Address inequities in access to transportation.** For example, after finding that taxis were not adequately serving several areas outside of Manhattan, the New York City Taxi and Limousine Commission established a separate medallion for a new fleet of taxis that are only allowed to serve the outer boroughs, and can drop off, but not pick up, passengers in Manhattan. While the CPUC collects drop-off data from TNCs, cities in California do not have access to similar data and cannot direct TNC fleets to serve parts of the city that lack access to transportation-for-hire services.

**Shared Mobility Devices: Types and Trends**

*Types of Devices.* In recent years, cities have seen an influx of “shared mobility devices”—fleets of personal mobility devices that can be rented through the use of a mobile app or kiosk. Shared mobility devices are picked up and dropped off in the public right-of-way and are meant for short, point-to-point trips (rather than using the same device for a round-trip journey). Since these devices are smaller than other forms of vehicular travel, they are often referred to collectively as “micromobility.”

The shared mobility device trend initially began with the deployment of public rental bicycles that users borrow from and return to docking stations at specific locations, such as the Citi Bike program deployed in New York City beginning in 2013. In subsequent years, additional modes of “micromobility” have sprung up in cities across the country, including bikes with a power-assist feature (e-bikes) and battery-powered, motorized scooters (e-scooters). Depending on local regulations, these shared mobility devices may be docked, like previous bikeshare programs, or dockless, where the devices are generally rented through a mobile app that identifies the locations of the devices and which may be left wherever the user ends their trip. To access a shared mobility device, a user typically creates an online account with a provider, looks for and ‘unlocks’ one of the provider’s devices through a smart phone application, and takes it for a trip on a per-minute rate, with additional fees depending on the platform that operates the service.

Because dockless shared mobility devices do not have to be returned to a central point for charging or maintenance, they rely on networks of individuals (known as “chargers”) to reposition, charge, and maintain the devices so that they remain ready for use.

*Trends in Shared Micromobility.* The industry has seen significant growth in recent years, and dockless scooters in particular have proven to be extremely popular. As shown in the graph below, a 2019 report by the National Association of City Transportation Officials (NACTO) found that nearly half (46%) of the trips on shared mobility devices in 2018 were made on e-scooters—in the first year of their adoption.
Growth in the micromobility industry is expected to continue. A 2019 analysis by the Deloitte Center for Integrated Research argues for the potential of these devices noted, “More than half of the car trips taken annually in the United States cover less than five miles, making those journeys open to short-range alternative modes such as e-scooters and bikes.” The consulting firm McKinsey and Company estimated in a 2019 report that shared micromobility will account for 8 to 15% of trips of under 5 miles worldwide by 2030. That report also estimated that the market for micromobility in the United States will reach approximately $200 to $300 billion dollars by 2030.

Promise and Impacts of Shared Mobility Devices

**Benefits.** Because of the rapid adoption of these devices and the sheer number of trips that could be replaced by shared mobility devices, the micromobility industry has the potential to be an important solution to many transportation challenges facing California today, including reducing greenhouse gas emissions, air pollution, and congestion, and increasing public transportation use. Surveys of shared mobility device users consistently find that between 35 and 50% of shared mobility trips displaced a car trip that would have otherwise taken place, reducing the number of cars on the road and decreasing congestion. In addition, since these devices are human- or electrically-powered, they avoid many of the greenhouse gas and criteria air pollutant emissions associated with motor vehicles. Finally, while public transportation systems remain the most environmentally friendly means for moving large numbers of people rapidly, usage of public transportation has been held back because potential riders may not have convenient access to a transit stop—known as the “first mile/last mile challenge.” Widespread deployment of dockless shared mobility devices can make it easier, faster, and more convenient for potential public
transportation passengers to get from their point of origin to a transit stop and from a transit stop to their destination, increasing transit ridership while lowering city expenditures needed to extend transportation systems to further-flung geographic areas. As a result, cities can reap significant benefits from shared mobility devices within their jurisdictions.

**Impacts.** However, shared mobility devices can also create challenges that typically fall to local governments to address. Because these devices are deployed in the public right-of-way, improperly parked devices may block sidewalks, which can impede pedestrian access and create hazardous obstacles, particularly for seniors or persons with disabilities. Excessive traffic from these devices in popular areas, such as tourist destinations, can also interfere with the experience of passers-by. Despite state laws prohibiting e-scooters from being used on sidewalks and warnings from e-scooter companies and local governments, some riders continue to use sidewalks while riding, creating a potential hazard for pedestrians. A survey of Lime e-scooter riders in Salt Lake City attributed this practice to fear of automobile traffic: sidewalk ridership increases by 310% when no bike lane is available, but when a bike lane is available, 82% of riders surveyed said they used it.

Medical professionals have also noticed a significant uptick in scooter-related injuries. For example, a 2019 study of e-scooter injuries at two Southern California emergency departments documented 249 e-scooter injuries over the course of one year (September 2017 to September 2018), 40% of which were head injuries. While most injuries in the study were to riders themselves (92%), 21 nonriders were injured as well. In addition, a comprehensive study of e-scooter injuries in Austin, Texas, that occurred from September 5, 2018 to November 30, 2018, documented 192 injuries. During that time, 936,110 e-scooter trips were taken in Austin, covering 891,121 miles. The study reported an injury rate of 20 injuries per 100,000 trips.

Shared mobility devices can also have environmental impacts. Recent news reports have documented numerous instances of e-scooters being dumped in lakes, oceans, and other water bodies. For example, in October 2018, more than 60 e-scooters were retrieved from the bottom of Lake Merritt in Oakland, CA, and police retrieved 57 e-scooters from the Willamette River in downtown Portland, Oregon over the course of two days in June 2019.

The greenhouse gas reduction benefits of e-scooters have also been called into question. A lifecycle analysis of global warming impacts of e-scooters published in 2019 by a set of researchers from North Carolina State University estimated that greenhouse gas emissions associated with e-scooter use are higher in 65% of scenarios than the suite of modes of transportation that are displaced by e-scooter use. These results were primarily driven by: (1) a relatively short four-month lifespan of e-scooters; (2) the emissions associated with the network of chargers that retrieve, charge, and reposition e-scooters on a daily basis; and (3) the displacement of less carbon-intensive modes of transportation, such as walking or biking, by e-scooter trips. However, several e-scooter companies (including Bird and Lime) purchase carbon offsets for the electricity used to charge e-scooters, among other operational improvements to reduce carbon intensity, and are working to develop more robust e-scooters that have a longer lifespan, thereby reducing the emissions per e-scooter trip.

Finally, local governments expend resources to monitor and enforce requirements that they put in place to ensure that their policy goals are met and that these devices are operated in a manner
that does not have negative effects on public welfare. For example, after the unregulated launch of e-scooters in Beverly Hills, the police department began issuing warnings and citations to riders not wearing helmets, for driving on sidewalks in prohibited areas, or for not possessing a valid driver’s license while riding, and the Los Angeles Police Department issued over 900 citations to e-scooter riders from January to mid-July 2018. Local authorities must also respond to injury-causing accidents involving motorized scooters and remove e-scooters from sidewalks and streets when they blocked traffic.

**State and Local Regulatory Framework**

State law regulates some aspects of motorized scooters, which includes today’s dockless scooters. Among other requirements, state law forbids riding motorized scooters:

- Without a valid driver’s license;
- Without adequate brakes;
- At speeds of greater than 15 miles per hour;
- On a road with a speed limit of over 25 miles per hour, except in some cases where allowed by a local government;
- On sidewalks, except as necessary to enter or leave adjacent property;
- With a passenger; or
- While carrying any object that prevents the rider from keeping at least one hand on the scooter’s handlebars.

Motorized scooters cannot be parked lying on its side or in any other position that blocks pedestrian traffic, and a motorized scooter rider must wear a helmet if under the age of 18. Scooters and scooter riders must obey all other laws that apply to motor vehicles, including laws on drunk driving, accident reporting, and violations of the Vehicle Code.

Beyond these and other state requirements, local governments have discretion to regulate the use of motorized scooters. The California Constitution allows a city or county to “make and enforce within its limits, all local, police, sanitary and other ordinances and regulations not in conflict with general laws, known as the police power of cities.” It is from this fundamental power that local governments derive their authority to protect public health, safety and welfare. Where not constrained by state or federal law, cities and counties can use their police power to regulate or prohibit many types of behavior or activities. The police power forms the basis for local regulation of land use, business operation, commercial sales, nuisances, and other potential harms to the community.

As an extension of the police power, state law allows local governments to require businesses operating in their jurisdictions to obtain a license and impose related licensing fees. Most cities and counties require businesses to operate under a business license, although some counties do not require business licenses for businesses operating in unincorporated areas. For example, both Sonoma and San Diego counties do not require business licenses for businesses operating in these areas.
Prior to the widespread deployment of shared mobility devices, few local governments had specific laws pertaining to these devices and the companies that operate them. In the absence of specific regulations, a business license is typically all that is required to operate a shared mobility service. In the wake of unregulated deployment of dockless, shared motorized scooters in 2018, many local authorities, including in Los Angeles and San Francisco, moved quickly to develop regulations while others instituted temporary bans on the motorized scooters.

Local regulation of shared mobility devices takes many forms, developed in response to local conditions. Local regulations often include some or all of the following elements:

- A pilot program that allows operation of shared mobility devices on a smaller scale or limited time frame.
- A cap on the number of devices that can be operated, such as on a city-wide basis, per operator basis, or with tiers to encourage shared mobility service providers to meet certain deployment or usage goals.
- A cap on the number of companies that can operate shared mobility devices within a jurisdiction.
- Imposition of fees to recover the costs associated with administering or enforcing shared mobility device regulations, or enhancing the infrastructure needed to support the use of the devices (such as building additional bike lanes).
- Deployment or distribution requirements, such as specifying locations where scooters must be deployed at the start of each day.
- Specified parking locations within the right of way, such as at bike racks or in the landscape zone of the sidewalk.
- Insurance requirements that specify the types and amounts of insurance coverage that a scooter company must provide.
- Indemnification requirements that hold the city harmless for scooter-related accidents.
- Geographic limitations, such as to ban scooter use in certain districts.
- Device specifications, such as the types of devices allowed or the maximum speed that the devices may travel.
- Requirements for utilization rates, such as specifying a minimum number of daily rides per scooter.
- Standards for compliance with local regulations, such as establishing specific response times for complaints regarding improperly parked scooters.
- Customer service requirements, such as the availability of phone lines for customer complaints.
- Privacy and data sharing requirements to enable enforcement and transportation planning.

Recent Legislation. In 2019, legislators introduced two significant bills to regulate shared mobility devices. AB 1112 (Friedman) places restrictions on (1) the data a local authority may require a shared mobility device provider to provide to the local authority and (2) the kinds of regulations a local authority may place on a shared mobility service provider or user. Specifically, AB 1112 prohibits local governments from requiring real-time, individual trip data as a condition for operating a shared mobility device program. Under AB 1112, local governments could only require shared mobility device companies to provide deidentified and aggregated data. AB 1112 allows local governments to enact reasonable regulations on shared
mobility devices, but limits fees to the reasonable and necessary costs incurred by the local
government as a result of administering shared mobility device programs within its jurisdiction.
The bill also deems an ordinance that bans shared mobility devices to have a significant impact
on the environment for the purposes of the California Environmental Quality Act. AB 1112 is a
two-year bill and is currently in the Senate Transportation Committee.

AB 1286 (Muratsuchi) places requirements on companies that provide shared mobility devices
and the local authorities that allow such devices to be operated within their jurisdictions. These
requirements include to maintain commercial general liability insurance coverage for at least $1
million for each occurrence for bodily injury or property damage, and at least $5 million
aggregate for all occurrences during the policy period. This insurance cannot exclude coverage
for injuries or damages caused by the shared mobility service provider to the shared mobility
device user. AB 1286 also prohibits shared mobility providers from requiring a user agreement
to contain a provision by which the user waives, releases, or in any way limits their legal rights
or remedies under the agreement. The bill requires local governments that allow shared mobility
devices in their jurisdictions to adopt rules for the operation, parking, and maintenance of shared
mobility devices, and allows local governments to adopt other ordinances or regulations that are
not in conflict with the bill. AB 1286 is a two-year bill and is currently in the Senate Judiciary
Committee.

Next Steps

In the course of the hearing and as legislation on shared mobility devices is considered by the
Legislature, the Committees may wish to consider the following questions:

• What lessons have we learned from the way that state regulation affected local authority
to regulate TNCs? What were the benefits and costs of state legislation on TNC
regulation? Should the Legislature seek a different path forward with shared mobility
devices?
• How can the Legislature ensure that these devices reach their full potential to reduce
dependence on cars and make traditional forms of transit more viable while ensuring the
safety of riders and other California residents? What is the appropriate balance between
ensuring public safety and regulations that may increase the cost of riding shared
mobility devices?
• Which areas of shared mobility device regulation require standardization statewide, and
which areas should be left up to local governments?
• Technologies that use the public right of way to provide services will continue to
develop. How can cities ensure that they are well-positioned to adapt to the next change
in mobility without having to play catch-up, as happened in some jurisdictions with
shared mobility devices?

Other Resources

For additional resources on shared mobility devices, please see the documents below. These
documents provide comprehensive information on shared mobility device adoption, benefits,
impacts, and methods of regulation.
• Shaheen, Susan, PhD, and Cohen, Adam. *Shared Micromobility Policy Toolkit: Docked and Dockless Bike and Scooter Sharing*. https://escholarship.org/uc/item/00k897b5

• NACTO. *Guidelines for Regulating Shared Micromobility*. https://nacto.org/sharedmicromobilityguidelines/