

The State of Scooter Sharing in United States Cities

Sarah M. Kaufman and Luke Buttenwieser

Rudin Center for Transportation

New York University Robert F. Wagner School for Public Service

August 2018

Background

Scooter sharing, the temporary rental of motorized standing kick scooters, emerged in the Fall of 2017 as a last mile and short-distance travel mode. In cities across the United States, thousands of scooters were deployed virtually overnight. Electric scooters quickly became popular with city residents.

The scooter's appeal stems partially from the ubiquity of the children's Razor Scooter in the early 2000s, when the millennial generation was growing up. The latest scooters are the next step in the micro-mobility revolution, following dockless bike shares.

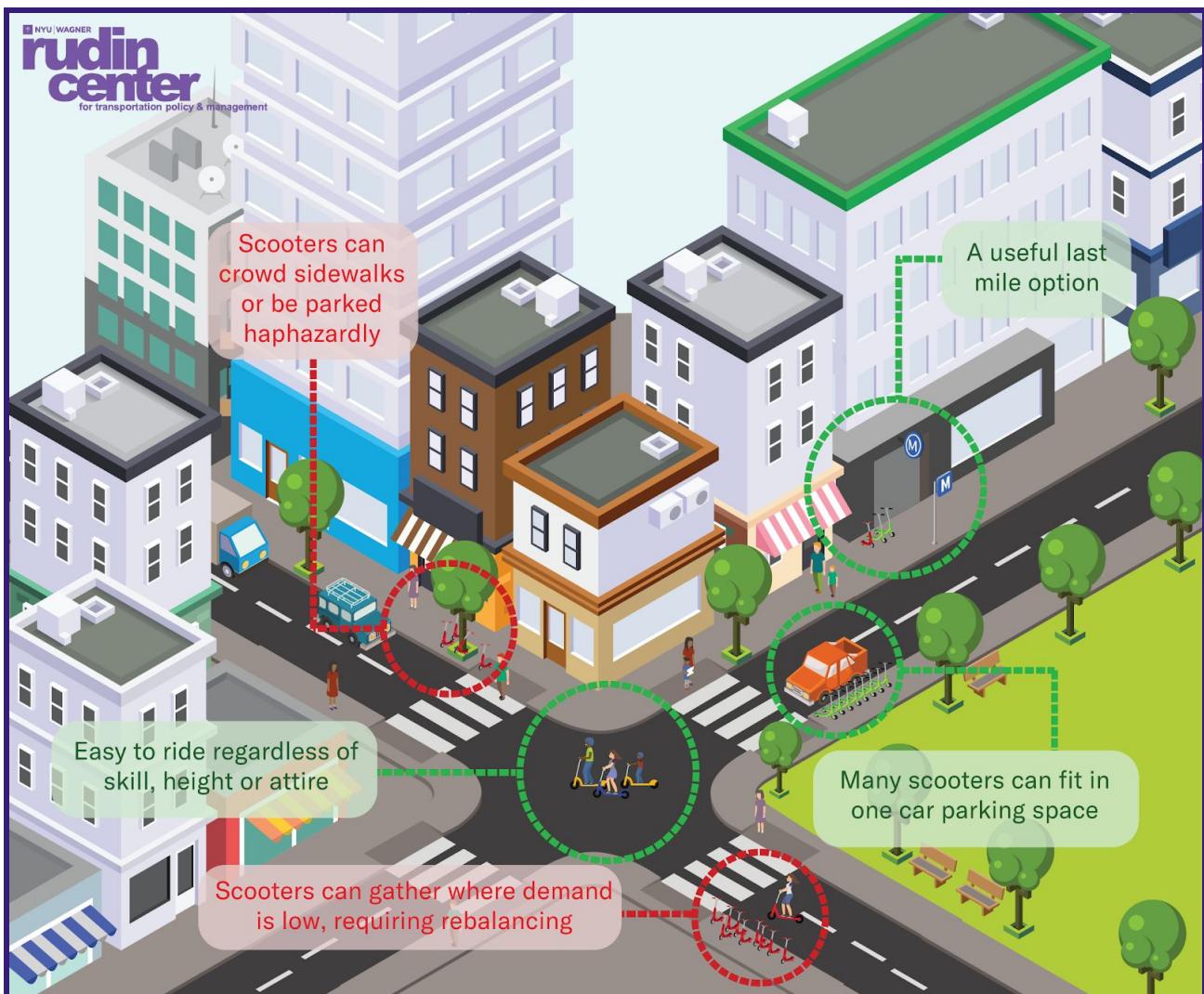
The major e-scooter sharing companies, Bird, Lime and Spin, aim to provide a new mode of urban transit with a low barrier to entry. However, cities across the U.S. are struggling with how to regulate scooters. Requiring street space to operate and sidewalk space to park, scooters can interrupt the flow of, and even endanger, pedestrians, bikes and wheelchair users. In light of these challenges, city regulators must develop intelligent policies that balance the need for safety with the public desire for a new, efficient travel mode.

Solving the last mile

Scooter companies focus their product offerings on the “last mile problem,” which refers to trips under one mile, typically between a transit stop and a home or place of work. These trips are often too short for driving, but too far to walk. In San Francisco, Bird riders report traveling an average of 1.5 miles per trip — longer than the average walk of 0.9 miles and less than the average private car trip of 2.3 miles. Scooters are

essentially solving the last-mile problem for these users. Furthermore, resolving the last mile makes scooter users more likely to ride transit.

Benefits & Challenges of Scooter Shares



Major Scooter Share Companies in U.S. Cities

	BIRD	 Lime	SPIN
Founded	2017 ¹	2017 ²	2016 ³
Scooter	Xiaomi Mi Electric Scooter	In-house Lime-S Segway Edition	Xiaomi Mi Electric Scooter
Top speed	15 mph top speed	14.8 mph top speed	15 mph top speed
Range	15 mile range	20+ mile range	15 mile range
Valuation	\$2 billion ⁴	\$1.1 billion	\$43.2 million ⁵
Cost to Ride	\$1 to start, \$0.15 add'l minute	\$1 to start, \$0.15 add'l minute	\$1 to start, \$0.15 add'l minute
Mission	"Our mission is really to help reduce car trips, traffic and carbon emissions," - Travis VanderZanden ⁶	"By connecting cities and improving the way people experience first and last mile transportation, we aim to leave future generations with a cleaner, healthier planet". ⁷	Helping people move through cities on an environmentally friendly mode. Connecting people from transit to their destinations.
Low-income user policy	One Bird policy eliminates the \$1 base fee per ride for anyone who is currently enrolled in, or eligible for, a state or federal assistance program. ⁸	Has a lower-income policy in place, called Lime Access, but only for its pedal bikes. The policy is either 50% off all rides or a 100-pack of rides for \$5. ⁹	Has a team dedicated to accommodating low income users.
Additional Notes	Exclusively a scooter share company. Has had explosive growth.	Received funding from Alphabet and Uber; available on Uber app.	Started as a bike share and has transitioned to scooters.

¹<https://qz.com/1324761/xiaomis-electric-scooters-are-a-hit-with-us-startups-like-bird/>

²<https://www.limebike.com/press>

³<https://techcrunch.com/2018/02/08/bike-sharing-startup-spin-is-getting-into-scooter-sharing/>

⁴<https://money.cnn.com/2018/07/09/technology/bird-valuation/index.html>

⁵<https://pitchbook.com/news/articles/lime-eyes-another-500m-while-spin-weighs-funding-offers-worth-tens-of-millions>

⁶<https://www.cnet.com/news/the-electric-scooter-invasion-is-underway-bird-ceo-travis-vanderzanden-leads-the-charge/>

⁷<https://www.limebike.com/about-us>

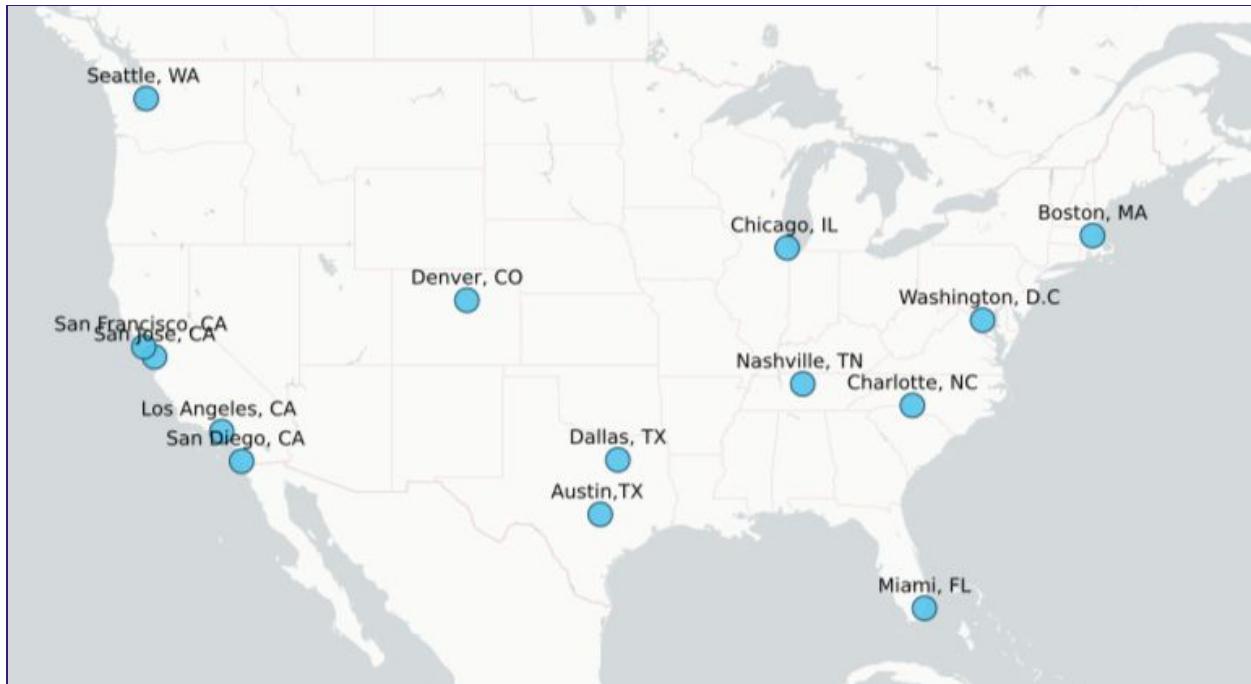
⁸<https://www.prnewswire.com/news-releases/bird-announces-one-bird-300683800.html>

⁹Ibid

Urban Scooter Regulations

Most municipalities did not adopt scooter regulations prior to the deployment of scooters by private firms. Cities have responded to scooters with a broad spectrum of policies: halting scooter operations, capping the number of scooters on city streets, or openly accepting and making space for scooters.

The map below shows major U.S. cities with scooter share regulations:



On July 11th the Nation Association of City Transportation Officials (NACTO) released [guidelines](#) to help cities to regulate and manage shared active transport. NACTO detailed the steps cities can take, such as dedicated scooter parking and equity programs for lower-income riders.

With many U.S. cities developing regulations surrounding scooter shares, policies should reflect the need for safety of all users, while also promoting efficient modes of travel.

Density of shared scooters

Making scooters available in key urban areas is essential to maximizing their utility. Some cities have developed balancing ordinances: Denver requires scooters to be parked near transit stations, while Atlanta prohibits over-saturation in specific areas.¹⁰ Balancing scooters ensures that they can be used by more residents and provide better access to transit.

San Francisco and other cities have imposed caps on the number of scooters available to residents, to prevent streets and sidewalks from being overrun by electric scooters. However, capping the number of vehicles in a shared mode limits the utility of that mode and prevents potential for growth by reducing usefulness to its users as well as hindering companies' growth.¹¹

Looking ahead

The scooter share industry is dynamic and growing. Private firms are attracting investors as scooter offerings expand into cities across the United States and the globe. City governments are responding with rules and permits to ensure safety and equity.

Scooters are the latest example of shared mobility, following the emergence of rideshare and bikeshare. Electric scooters have multiple draws: childhood familiarity, dockless flexibility, ease of use, low cost, reduced environmental impact and ability to connect to transit. However, scooter shares have encroached on active corridors like streets, bike lanes and sidewalks; opponents have called them “tech toys” for millennials. Cities are seeking to develop regulations that both promote innovation and ensure public safety. With the emergence of new forms of mobility, including e-scooters, pedal-assist bikes and autonomous vehicles, it is more vital than ever for cities to develop intelligent policies that ensure safety on both sidewalks and streets.

¹⁰<https://atlanta.curbed.com/2018/7/3/17530446/bike-scooter-share-atlanta-regulations>

¹¹<https://www.smartcitiesdive.com/news/ofo-blames-onerous-city-regulations-for-us-departures/528409/>