NATIONAL LEAGUE OF CITIES

CENTER FOR CITY SOLUTIONS

Micromobility in Cities:

THE CURRENT LANDSCAPE

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About the National League of Cities

The National League of Cities (NLC) is the voice of America's cities, towns and villages, representing more than 200 million people. NLC works to strengthen local leadership, influence federal policy and drive innovative solutions.

NLC's Center for City Solutions provides research and analysis on key topics and trends important to cities and creative solutions to improve the quality of life in communities.

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Introduction

Love them or hate them, e-scooters have increasingly become a common fixture on city streets—and sidewalks—in recent years. Then a global pandemic hit and suddenly halted what seemed to be an ever-growing alternative transportation option. While e-scooters have returned to most cities, the once lavishly venture-fueled marketplace has noticeably contracted. One of biggest marketplace shifts is the acquisition of Jump e-bikes and scooters from Uber by Lime, independently two of the biggest micromobility companies.[1] While at the start of the pandemic it looked as though many cities might lose micromobility options altogether, that has not been the case. However, the number of cities with scooters deployed has changed the dynamic of how companies work with cities and what future relationships will look like. Some cities lost a provider at the start of the pandemic as Lime, Bird and others pulled their scooters, but most have now returned and some cities, such as Chicago and Minneapolis, removed micromobility bans that were imposed pre-COVID. While the dust is still settling in terms of the upset COVID-19 caused for micro-transit, the overall number of scooters deployed across the country has remained relatively the same, with some companies pulling scooters and others filling the void.[2]

The versatility of micromobility turned out to be a benefit during the pandemic. According to a study from McKinsey, during the pandemic average trip lengths have increased, expanding e-bikes and scooters beyond the first-last mile territory, and trips to places such as pharmacies and restaurants also increased.[3] In some cities where public transit service decreased, there was a noticeable uptick in micromobility usage. In Detroit, for example, usage increased by 60% and Spin, a scooter provider, worked directly with the city to place scooters along closed or reduced bus routes.[4]

Micromobility in Cities: The Current Landscape

Average Scooter Deployment by City Size

Overview of Shifts

Scooters took cities by storm in 2018, in many cases showing up overnight. Since then, we have seen a shift in how cities engage with the sector, the expansion of e-bikes and scooters to small- and mid-size cities, and increased ridership across the board. From a regulatory perspective, micromobility was not the first rodeo for cities. When Transportation Network Companies (TNCs), such as Uber and Lyft, began operating in cities there was no roadmap and cities had to quickly adapt. When micromobility came on the scene in 2018, many cities used the lessons they learned from dealing with TNCs to help them develop a framework for e-scooters.

Micromobility improves mobility options in a myriad of ways. In some areas it provides a first-last mile option for commuters, an easier way to navigate congested downtown areas, and, more recently, a single-occupancy option for getting around during a global pandemic.

Shared scooters and bikes provide people with options outside of personally owned automobiles, creating better, healthier, more environmentally friendly cities. With many cities closing streets to cars as part of the "slow streets" movement and the uptick in both personal and rented micromobility rides during the pandemic, there is a potential for some of these changes to last post-pandemic. A survey Lime conducted in June 2020 found that over 50% of respondents felt that streets altered to provide more space for walking and biking should keep some level of these changes post-pandemic.[5]

Even before the COVID-19 pandemic hit, the mobility landscape was seeing a notable shift in conversations around greener, shared-use models. The future looks different, and our goal with this guide is to provide cities with the ability to navigate the current micromobility environment and build partnerships that work for your community.

Ultimately, the value of these services is true integration into a holistic mobility environment- getting people around cities. With the pandemic likely shifting the way people get around for the foreseeable future and residents expressing support for slow streets and increased bike lanes, scooters are here to stay and cities will continue to play a vital role in shaping the future of mobility. In recent years, cities have led the charge in increasing the focus on equity in micromobility and making sure scooters work for residents.

How Micromobility in Cities Works

Traditional mobility options and services, such as taxis and public transit systems, were established by local governments through a competitive procurement process and public-private partnerships. These partnerships and contracts were typically developed by cities and designed based on achieving specific outcomes, which often aligned with the city's long-term goals. Electric bikes and scooters, however, did and do not align with the typical approach local governments established regarding mobility options and services. Many companies initially adopted the "ask for forgiveness not permission" strategy, dropping their products into cities overnight without prior consultation with city leaders (e.g. Santa Monica in 2017),[6] taking advantage of the legal and regulatory grey area of shared, dockless mobility services.

Because these new services are not directly procured by local governments, cities have developed frameworks for management in the last two to three years, developing mechanisms to take advantage of the positive potential, and limit the negative impacts of micromobility. In doing so, cities have aimed to increase access, safety, and economic opportunity for residents, while reducing congestion, vehicle miles traveled (VMT) and carbon and greenhouse gas (GHG) emissions.

Cities have taken different approaches to navigating and managing the shared mobility landscape. For example, many cities start with a pilot program to identify potential pain points to be ironed out before a full program launch and to gauge resident response. With the onset of COVID-19 many pilot programs were extended (either officially or unofficially) and permit changes put on hold. As the new normal has taken hold, many cities are getting back to their mobility plans and thinking about how micromobility fits in.

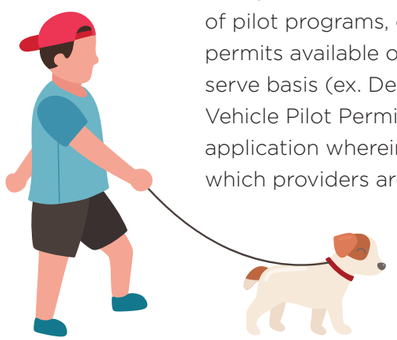
MEMORANDUM OF UNDERSTANDING SERVICES CONTRACT

Some cities have instituted a Memorandum of Understanding (MOU) that outline the terms and performance measures that providers must agree to meet before operating within a city. This strategy tends to be taken when cities launch short-term pilot projects, generally three, six, or twelve months. In this agreement, cities typically outline the responsibilities of the city and the participating company. It generally covers such topics as equipment management, fleet size, fleet condition, vehicle parking and removal, data sharing provisions, penalties and fines, duration of the pilot program, service areas, equity requirements, insurance and indemnification, and modification and termination.

Key Consideration: While establishing an MOU gives cities and providers the ability to immediately introduce vehicles and launch a pilot project, MOUs may not provide the same flexibility regarding specific operating outlines as a permit or licensing system allows for, unless the MOU language can be negotiated and amended after city council's authorization.

PILOT PROGRAM

Many cities have launched shared micromobility pilot programs, providing a testbed both for the service itself and for different regulations and best practices learned from other communities. Many city goals for pilot programs are based around understanding the dynamics of the emerging marketplace; learning from and collaborating with peer cities to develop best practices, gaining insights into mobility trends through the use of collected data, addressing concerns over equity, safety, and accessibility of modes of transit, understanding how the service interacts with existing mobility options, and developing a permanent program that fosters innovation and prepares the city for new and unanticipated modes of transportation in the future.[7] As a part of pilot programs, cities can make their permits available on a first come, first serve basis (ex. Denver's Dockless Mobility Vehicle Pilot Permit Program[8]) or permit application wherein a city may choose which providers are permitted to operate (ex. Long Beach's Shared Micro-Mobility Pilot Program).[9]



Key considerations: Pilot programs are an effective way to learn about the service, partners and providers, operations, and the impacts before settling on a longer period for operations through a permanent permit or licensing structure. While e-scooter programs have the potential to help ameliorate transportation inequity, they do not necessarily solve all problems. Therefore, cities should establish realistic goals for pilot programs with the understanding that longer-term investments must be made in communities where demand may be low and adequate rider infrastructure does not yet exist (as in the case of having mandated geographic dispersal in targeted services areas). Cities must incorporate data provision requirements with clear metrics in mind, so that they can analyze the performance of the system. The learnings should then be incorporated into longer-term permits or future bidding processes.

REQUEST FOR QUALIFICATIONS (RFQ) & REQUEST FOR PROPOSAL (RFP) PROCESS

Many cities choose to employ an RFP process to secure providers for shared micromobility services, allowing the companies themselves to provide and manage the service, which makes regulation and management easier for the city. An RFP process may be employed both for a pilot program and for more permanent service provision. An RFQ may precede an RFP. In an RFQ, the city can establish a potential pool of vendors who match the city's outlined goals and priorities, who the city then opens the RFP process to.

Key considerations: It should be noted that an RFP process could restrict the competitiveness of the market that may improve the features and services available to residents.[10] It is important when designing the RFP requirements that the city very clearly outlines the goals and priorities of the city, and design outcome-oriented equity requirements for providers. These goals should be made in partnership with community members before the RFP is drafted to ensure that the goals the city has set forth match the goals community members envision themselves.

PERMIT OR LICENSE

Most cities have now instituted a permitting process, to streamline program management and incentivize providers to be good partners (to ensure permit renewal). A permit or license creates a framework for operations with specific provisions (e.g. data sharing parameters, minimum qualifications for permit or license holders, establish clear guidelines for operations) that can be adjusted or updated, which allows cities to test and learn from their experience during each permit period. By creating a performance-based regulatory framework, cities can maintain a competitive market (as opposed to the market that an RFP may create) to ensure quality and affordable services. The downside to permit or license is that it may be difficult to manage many applicants, providers, and an abundance of physical e-scooters in the city.

Key considerations: Cities should create very clear metrics and expectations for success and expansion. For many cities with policy goals like equitable distribution of resources to historically underserved communities, establishing clear policy objectives in partnership with community members and communication with providers is key to success

OVERCOMING CHALLENGES

These different structures for managing e-scooters on city streets have been utilized by cities in an attempt to manage a new form of mobility that quite literally popped up overnight. What works for one city may not work for another, but cities have exemplified the importance of iterating and incorporating flexibility. Nothing has exemplified this more than the COVID-19 pandemic. When the pandemic began, many scooter providers removed their scooters as quickly as they appeared, leaving many communities without a safe transportation option, while others stepped up and attempted to fill in the gaps.[11] As it became clear that the pandemic was not going to be short-lived and that more single-occupancy transportation options were needed, some cities, like Chicago and Minneapolis, reversed previous bans on scooters.[12] As cities across the country are seeing residents demand more safe spaces for biking, walking, and scootering, micromobility has again become a topic of conversations in (mostly virtual) city halls.

Equity

WHY IS EQUITY IMPORTANT TO CONSIDER WHEN DEPLOYING MICROMOBILITY?

Transportation is key to health, education, employment, economic development, and environmental quality. Decades of policy decisions have had disproportionately negative impacts on low-income and minority residents, which has restricted their access to quality health care, education, and job opportunities, and exposed some residents to environmental hazards.[13]

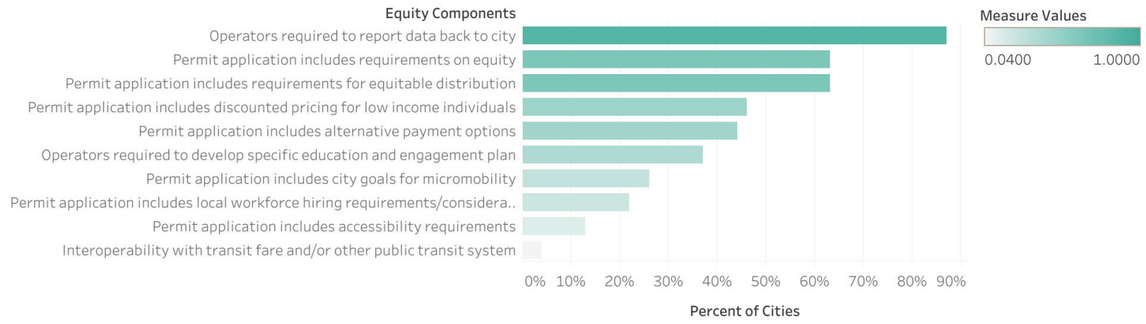
Micromobility has taken off as a form of transportation and mobility that can help mediate these inequities by providing a lower-cost alternative to other transportation options (both for the riders and for the city) that expands reachable locations with minimal infrastructure investments. Without thoughtful planning, however, city leaders risk exacerbating or perpetuating existing transportation inequities.

Some of the historic barriers to access that women, low-income, and minority residents have faced in accessing adequate transportation options are both physical and non-physical. Residents face disproportionate safety risks due to a lack of adequate infrastructure. Racial and ethnic minorities face the disproportionate impacts of the enforcement of rules regarding the use of transportation options (ex. bikes, e-scooters). These same barriers apply when considering access to micromobility that city leaders must prioritize addressing as micromobility continues to be a viable option and solution cities look to.

These barriers have been highlighted by the social, economic, and public health impacts of COVID-19. For instance, Black, Indigenous and People of Color (BIPOC) live further away from essential services such as grocery stores and medical facilities, and/or lack access to safe and reliable transportation, both of which exacerbates existing health conditions and impacts their ability to stock up on supplies that would allow them to stay at home and to receive care if sick.[14] Access to good transportation is key to accessing testing, as many testing centers are not located in high transmission risk zip-codes with higher rates of racial and ethnic minorities, but neighborhoods with higher concentrations of white households and higher-income households. Without access to good transportation, many communities of color face systemic barriers to testing.

Furthermore, Black and Latinx workers are overrepresented in most essential

Equity Matrix



industries.[15] According to the US Bureau of Labor Statistics, Black and Latinx workers are disproportionately represented employees in grocery stores, hospitals, nursing care facilities, bus and urban transit, and other essential job functions. Essential workers are at a much risk of community spread of COVID-19 and safe ways to get to work are very important for these residents.

These barriers that have surfaced because of historic and compounded transportation inequities are being heighted due COVID-19. Without addressing these systemic inequities, these barriers will continue to surface in various iterations.

EQUITY MATRIX

For this report, NLC staff compiled and analyzed all publicly available city micromobility permit applications, RFPs, and MOUs to assess the extent to which cities are building equity into agreements with micromobility providers. At a high level, over 60% of cities have equity requirements included in their agreements. The most common equity tool utilized is requirements for charged e-bikes and scooters to be equitably distributed across city neighborhoods. Many cities also require cash payments options to be made available to residents as well as discount programs for low-income residents. Another interesting finding is that cities increasingly are requiring micromobility providers to report data back to the city to help assess to what extent these equity requirements are achieving their goals and how usage may or may not change.

BARRIERS TO ACCESS

There are several physical and non-physical barriers to access that low-income and minority communities face in accessing micromobility services.

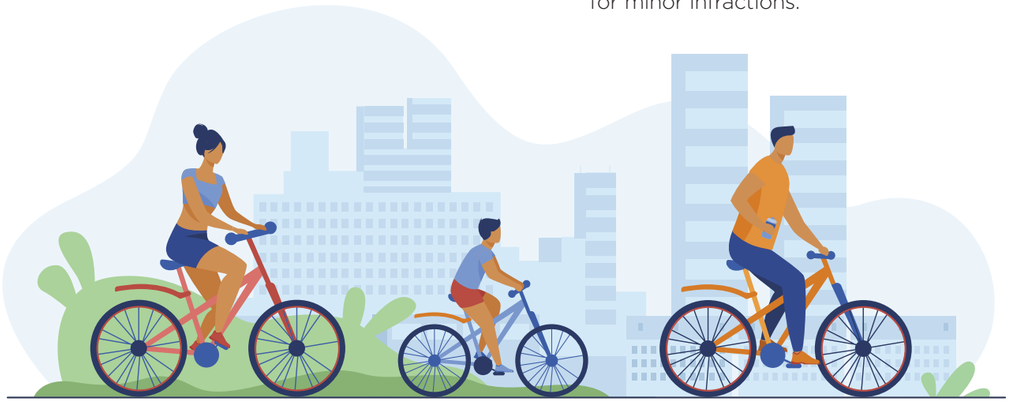
Language: Minority and low-income residents often have little voice in the deployment of these services, due to minimal outreach in the transportation planning process and a lack of readily available information, often due to language barriers.

Payment Options (Cost & Technology): In some cases, micromobility services may be too expensive for low-income residents to use. Alternatively, some residents may lack access to the technology necessary to use these on demand services (such as a smartphone) or not have a credit-card (which may be required to make the payments on the platform's app).

Availability by Geographic Location: Dependent on the contract between the city and providers, some neighborhoods may have fewer provisions of shared micromobility services. With fewer provided e-scooters, the service loses its appeal and reliability as a transportation option.

Public Safety – Infrastructure (Design & Perceived Risk): Without investment in infrastructure that protects riders from oncoming traffic (e.g. protected bike lanes), users may feel less safe using shared mobility services. Lower-income neighborhoods are less likely to have infrastructure that supports non-car forms of transit, meaning that even if communities are supplied shared mobility services (ex. through city mandated geographic dispersal of e-scooters), residents may not use the services due to the public safety risk they pose. Initial studies from cities such as Portland, OR on the demographics of micromobility users show that there is a significant gender gap in ridership.[16] Many of the public safety issues and lack of infrastructure can be pointed to as a cause.

Enforcement: The lack of safe infrastructure also intersects with the prevalence of over-policing in lower-income and predominantly BIPOC communities. Many cities have encountered a large proportion of users who ride on the sidewalk due to a lack of adequate infrastructure that makes riders feel safe enough to ride on streets. In predominantly minority communities, the impacts of over-policing may mean that riders, particularly younger Black and Latinx males, may be disproportionately penalized for minor infractions.



Micromobility in Cities: The Current Landscape

CURRENT DEPLOYMENT STRATEGIES

Transportation deserts, like food deserts, have increasingly become topics of conversations in cities across the country. Several factors have contributed to this shift. Increased congestion has made commuting via car less desirable and concerns about air quality and pollution have sparked questions about the proliferation of single-occupancy vehicles. The housing crisis sweeping the country is resulting in the neighborhoods residents work in becoming unaffordable for them to live in. Against this backdrop is the reality that public transportation infrastructure is incredibly expensive to implement and run, and yields little profit for the city: it is an investment in residents rather than a source of income. Low-income and vulnerable communities are thus often left out when it comes to transportation.

Micromobility has begun to shift this conversation in several ways. The first being that it is not a fixed route system, meaning a scooter that is deployed in one neighborhood in the morning may end up across town by the evening. Cities have also increasingly worked with micromobility providers to create permit clauses that require the scooters and bikes to be deployed with equity in mind. This can take the form of requiring that a percentage of the overall fleet be deployed in underserved areas or allowing the company to deploy more scooters and bikes than their permit stipulates if they deploy them in underserved areas.

In some instances, however, the barrier to access has been more complicated than simply placing a scooter in a transportation desert. Many residents have not operated the scooters before and are unsure how they work, the prices make them inaccessible, or they simply do not find them to be a viable option for the trips they wish to take. The societal barriers are problems that some cities have looked to community partners to help solve. Local organizations, that are generally based in these neighborhoods and have a rapport with the residents, are often better suited to understand the barriers in a particular neighborhood and be able to come up with strategies to overcome them. In some cases, it is as simple as getting out the information on reduced pricing plans, suggested safety measures, and introductions on how to use and ride them.

Equitable deployment is in many ways a new topic for cities given the nimble nature of micromobility. Even bike share programs, much more flexible than bus or metro systems, can require significant investment due to docking stations and other infrastructure required on the city's dime. With micromobility, cities are in the new position of evaluating a system created by the private sector and evaluating how it fits each city's needs. With permitting requirements outlining the expectations for providers and community organizations working to overcome social barriers to access, cities are creating a new system of deploying and evaluating micro-transit from an equity perspective.

Case Studies

OAKLAND, CALIFORNIA

Since scooters were first deployed in Oakland in 2017, the city has developed a permitting process for scooter providers, informed by initial data findings and input from residents at community outreach meetings. Initial findings showed that the racial breakdown of scooter riders was more representative of the population in comparison to car- and bike-share programs, but there was still room for improvement.[17] Recognizing the barriers that residents faced to using micromobility services (e.g. price, availability, lack of alternative payment options, and lack of physical infrastructure to support safe travelling etc.), the city established requirements for equitable distribution, alternative payments options, discounted pricing for low-income users, hiring a local workforce, accessibility requirements and a community engagement plan.[18]

While these equity provisions are key to providing Oakland's residents with a more equitable scooter program, the staff, time, and resources needed to enforce these stipulations have proven to be difficult, according to a city representative. For example, in the East Oakland neighborhood, the data highlights that ridership counts are not as high as other areas in the city, making it difficult for the city to get private companies to comply and deploy strategies to increase ridership in Oakland's Community of Concern.[19]

One program the city has seen a lot of success with has been the Bike Share for All program. This program was launched in partnership between the city of Oakland, TransForm (a nonprofit advocacy organization) and Ford GoBike. This equity outreach was funded by the Metropolitan Transportation Commission (MTC) and Motivate, the operator of FordGoBike. TransForm worked with community organizations (e.g. Scraper Bike Team, Chinese Newcomers Service Center, San Francisco Bicycle Coalition etc.). This initiative engaged in targeted, multi-lingual outreach by residents and organizations. With the help from TransForm, low-income bike-share ridership grew from just 3% to 20% of all Ford GoBike memberships as of June 2018, one of the highest in the country. While the Bike Share for All program was bike-specific, it highlights the efficacy and importance of engaging community organizations to help bridge the gap between low-income community members and transit access.

Given that it can be difficult for cities to involve the private sector in education and outreach strategies in lower-income neighborhoods, and these neighborhood residents may be wary of initiatives such as these, it is advantageous to get local community organizations involved, like TransForm, to conduct outreach, as they are already embedded in the communities, know how best to reach out to these community members, and understand how to truly listen. While resource limitations can be a barrier, these practices have proven efficacious and are worth exploring.

MINNEAPOLIS, MINNESOTA

Minneapolis launched two e-scooter pilot programs, one in 2018 and 2019.[20] In 2018, they only allowed 600 scooters maximum between Bird and Lime.[21] Under the 2019 e-scooter program, four operators were chosen to deploy 2,000 e-scooters, based on equity and safety goals. Beyond distribution requirements in areas of concentrated poverty, the city also required providers to have low-income pricing programs, and alternative payment and access options for those who do not have a smart phone or require/prefer a cash payment option. Additionally, the city stipulated that providers should engage in ongoing education and outreach on safe riding and proper parking etiquette.[22] According to data collected from the city, over 150,000 people took 1 million trips during the 2019 pilot period.[23] The purpose of these two pilots was to understand the service, how e-scooters fit into the city's transportation goals, and how the service was perceived by residents. Some key lessons learned from the two pilots was to keep in good communication with providers, select more than one provider at least initially while the service is still new to the city; set expectations for the service straight with providers; and keep an eye on how vendors are fulfilling distribution requirements.[24]

Most recently, the city of Minneapolis launched a program that will run from July 2020 to March 2021 in response to the sustained demand for e-scooters during the pandemic. Not only was there a sustained demand for the e-scooters, but people were also riding for longer trips. Last year in Minneapolis, the average trip was 13 minutes; during the pandemic, that number has regularly exceeded 20 minutes.[25] According to the city, proposals from the six vendors who applied were evaluated based on a number of criteria, including safety, equity, and experience, and judged by a panel which included city staff, the Minneapolis Park and Recreation Board, University of Minnesota and Minnesota Department of Transportation.[26] The city ultimately chose only two providers—Bird and Lyft—to maintain oversight and visibility of the scooter companies, and to gain as much cooperation and attention to detailed customer service and agreement requirements as possible.[27] The new agreement—in addition to requirements to equitably distribute scooters, low-income pricing options, and options for those who do not own a smart phone—requires companies to follow enhanced cleaning protocols and to require scooters to be locked to poles or bike racks, to address the issue of improperly parked e-scooters. Another new element of the program was a change to the fixed pricing structure. Instead of charging a flat 15 cent fee per vehicle beginning of ending in Minneapolis, the city will discount the charge if a vehicle begins or ends in an Area of Concentrated Poverty (ACP) to 5 cents. The city hopes that the carrot-stick approach will incentive vendors to fulfill their distribution requirements—data collected from the 2020 pilot will confirm the effectiveness of this approach.

CHICAGO, ILLINOIS

The Chicago Department of Business Affairs and Consumer Protection (BACP) launched a two-year Emerging Business Permit, under which Chicago e-scooter pilot projects fall. As a part of this permit, the BCAP and Chicago Department of Transportation (DOT) have partnered together to execute two e-scooter pilot programs, one in 2019 and one in 2020. As a part of this two-year process, the city will evaluate the impact and success of the pilot, using both ridership data and feedback from riders and non-riders, to determine the long-term suitability of an e-scooter program in the city.

Chicago's 2019 pilot project ran from June 2019 to October 2019. Ten companies were chosen by the BACP to operate 250 e-scooters each in specific areas in the northwest and west sides of the city, with the aim of testing the viability of scooters as a mobility option and designed to maximize safety and minimize sidewalk clutter. While the city did have requirements for equitable distribution in priority areas (underserved community areas), compliance with this requirement varied across providers – none of the providers met the 25% redistribution requirement.[28] Based on the city's evaluation of the survey, a number of things were clear: while showing promise to fill transportation gaps, ridership was geographically concentrated in areas with higher density of other transportation options; and strong incentives to comply with the city's rebalancing requirements needed to be developed in future pilots.

As the second iteration of the pilot project, Chicago's 2020 pilot program has integrated many of the lessons learned, feedback from community members and unanswered questions into the design of the pilot. As part of their permitting process, the city clearly outlined what the pilot purpose and objectives were.[29]

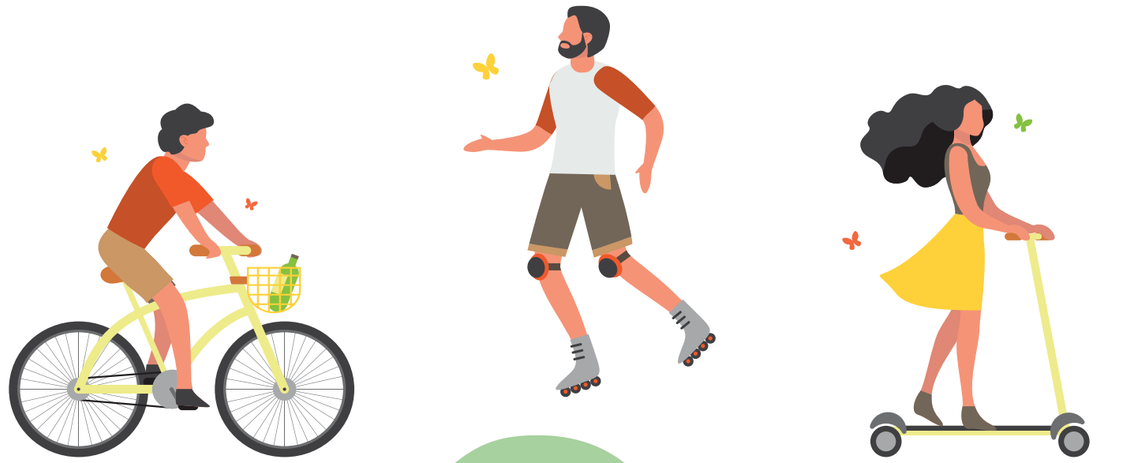
According to the city, its goal for the second pilot is to provide more equitable and balanced scooter distribution throughout the city.[30] Of the four applicants, the city chose three providers to operate in 2020: Bird, Lime and Spin running from August to December of 2020. These three vendors were chosen based on their demonstrated ability to meet Chicago's strict operational, safety and equity guidelines for the four-month pilot project.[31] Now, vendors will be allowed to operate up to 3,333 devices city-wide and must deploy at least 50% of their devices in "Equity Priority Areas." To address the lack of enforcement of the redistribution requirements, compliance on this requirement will be checked twice a day. Failure to comply with the pilot's terms may result in suspension or revocation of vendor licenses. While the results of Chicago's pilot program remain to be seen, Chicago's thoughtful approach to piloting e-scooters and using it as a viability test bed is one to watch.

Looking Ahead

At the start of 2020, micromobility had become a fixture in many large cities across the country, and medium and smaller cities were also getting on board. COVID-19 affected almost every aspect of city operation, and micromobility was no exception. From the initial reaction of private companies pulling their scooters off city streets to the mid-pandemic lull where some companies stepped up and worked with cities to fill transit voids, and some cities either allowing scooters for the first time or upping the number that could be deployed, e-scooters and bikes have proven to be a popular pandemic-friendly mobility option.

As city leaders and residents navigate the complicated landscape of transit under the cloud of a pandemic, the landscape has continued to shift. Cities and towns across the country have closed roads to cars, enlarged bike lanes, created new walking/biking/scootering lanes, and prompted a larger conversation on how cities can alleviate the historic barriers women, lower-income and BIPOC residents face in accessing quality transportation and mobility options. In Paris, the concept of the 15-minute city, the ability to access everything you need from food to childcare within a 15-minute bike ride, has continued to build momentum despite the pandemic. Oakland, CA closed 74 miles of road, or 10% of total road space, to cars so that residents had ample safe space for leisure and transportation with a specific focus on equitable access for their lower-income communities.

Micromobility, once thought of as a passing fad, and despite a rocky start to the pandemic, has become a transit fixture in cities. Whether the goal is continuing the clean air levels achieved due to COVID-19, offering efficient single-occupancy transportation options, or simply creating more mobility options that do not contribute to congestion, cities are beginning to strategically utilize micromobility to create more equitable transit systems.



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Micromobility in Cities: The Current Landscape


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