

# Exploring Shared Mobility Public-Private Partnerships



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# Exploring Shared Mobility Public-Private Partnerships

## MPA Capstone Paper

In Partial Fulfillment of the Master of Public Affairs  
Degree Requirements  
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The University of Minnesota

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# EXPLORING SHARED MOBILITY PUBLIC-PRIVATE PARTNERSHIPS

*A report for the Minnesota Department of Transportation (MnDOT)*

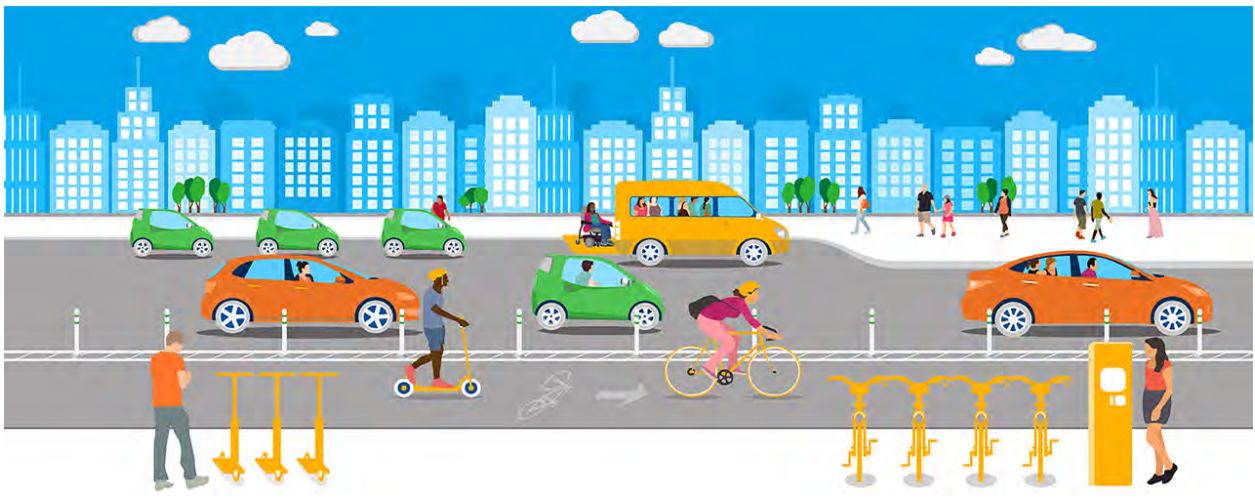


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*Photo: SAE International*

## INTRODUCTION

Building a reliable and accessible multimodal transportation system throughout Minnesota is the mission of the Minnesota Department of Transportation (MnDOT). To this end, MnDOT has recognized that shared mobility services offer an opportunity to fill public transportation gaps for short trips. Shared mobility services include taxis, van and carpool programs, ride-hailing services such as Lyft and Uber, car share, and micromobility services such as bike and scooter rentals. As these services grow, cities have experienced micromobility and ride-hail services appearing on their streets overnight with little advanced planning from the companies, causing cities to rush ad hoc operational decisions. Local transit agencies in cities need to understand how to create partnership agreements with shared-mobility companies to achieve the best long-term results for their residents.

MnDOT seeks to provide streamlined and informed guidance to shared mobility leads in communities that are exploring public-private partnership agreements with shared-mobility companies. This research report, prepared by the Humphrey School Summer Capstone 2022 student team, analyzes key findings from our data, makes informed recommendations for policy change, and proposes future questions to explore.

This report was made possible through the professional connections shared with us by Elliott McFadden of MnDOT's Greater Minnesota Shared Mobility Program and through Mike Greco of the University of Minnesota's Resilient Communities Project who helped our research team scope out a feasible project. Thank you to the employees of municipalities and shared mobility companies who interviewed with us.

## WHAT IS SHARED MOBILITY?

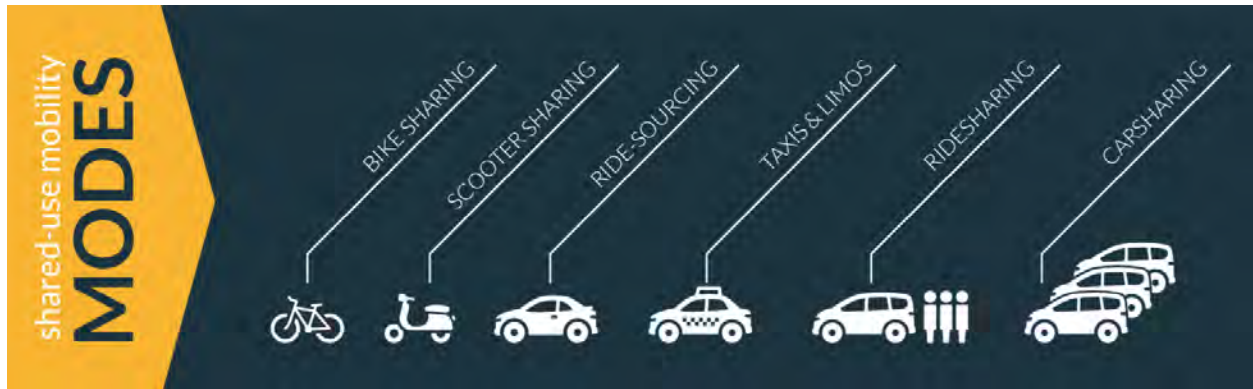


Photo: Shared-Use Mobility Center Reference Guide, 2015

The Shared-Use Mobility Center (SUMC), a public-interest organization working to shift transportation towards shared models centered in equity, affordability, and the environment, defines shared mobility as “transportation services and resources that are shared among users, either concurrently or one after another” (*What Is Shared Mobility?*, n.d.). These transportation services can include general public transit and additional services such as bikesharing, carsharing, ridesourcing, ridesharing, ebike and scooter sharing, and other modalities. Definitions of these services from the SUMC and other terms used throughout this report are below:

**Carsharing** - the practice of sharing a car for regular travel, especially for commuting. Carshare company in Minnesota: HOURCAR

**Micromobility** - a collective name for fleets of small, low-speed vehicles for personal transportation.

- **Bikesharing** - shared bikes available for self-service rentals. Docked bikeshare is a station-based system in which users unlock bikes from a fixed dock and return them to another dock at the end of the trip. Dockless bikeshare uses GPS-enabled “smart bikes” with integrated locks that can be unlocked via a mobile app. Users end the ride by locking the bike anywhere within the defined operating area. Bikeshare company in Minnesota: Nice Ride operated by Lyft
- **Ebike & Scooter Sharing** - electronic bikes and scooters available for short-term rental. Similar to dockless bikesharing, ebikes and scooters use the same technologies to enable service, but they rely on a motor for movement. Bikeshare companies in Minnesota: Bird, Lime, Lyft, Spin

**Mobility Hubs** - places in communities that feature multiple transportation modes combined in one location, such as public transit, bikeshare, carshare, and scooters.

**Municipality** - a city or town that has corporate status and local government. Municipalities are referred to interchangeably as “cities” throughout this report.

**Public-Private Partnerships** - also referred to as P3s, license agreements, or partnership agreements; these are the formal and documented relationships between a municipality and a shared mobility company, allowing a shared mobility service to operate in a specific municipality or jurisdiction.

**Ridesourcing** - providers use online platforms to connect passengers with drivers who use personal, non-commercial vehicles. Ridesourcing companies in Minnesota: Lyft, Uber

**Ridesharing** - traveling by car and adding additional passengers to a pre-existing trip.

- **Carpooling** - travelers riding together to save on fuel and vehicle operating costs. Often used for commuting, carpools can be arranged between known or unknown parties. No formal carpooling systems are operating in Minnesota.
- **Vanpooling** - often run by public transit systems, this allows groups of communities to share a ride for longer distances and on a larger scale than carpooling. Vanpooling in Minnesota: Metro Vanpool operated by Metro Transit
- **Real-time or dynamic ridesharing** - matches drivers and passengers based on destinations through a mobile app before the trip starts. Each passenger usually pays for a share of the trip costs. Lyft and Uber offer these services in other areas across the country, but not in Minnesota.

**Shared Mobility Leads** - employees across the state of Minnesota whose job responsibilities encompass overseeing some aspect of shared mobility services in their city or jurisdiction.



*Photo: City of Minneapolis*



## RESEARCH FOCUS AREAS

Three central focus areas shaped our research:

### 1. Predominant Public-Private Partnership (P3) Business Models

What are the predominant business models outlined in the public-private partnership agreements between Minnesota municipalities and shared mobility companies? For example, what are the fee structures, compliance and safety responsibilities, equity requirements, and data sharing practices?

### 2. Communication & Resources

How do municipalities communicate with one another around shared mobility topics, and what could improve this knowledge-share? What resources do municipalities need from MnDOT, beyond communication platforms, to improve shared-mobility partnerships across Minnesota?

### 3. Opportunities for Stronger Partnerships

What could strengthen partnerships between the shared mobility companies and municipalities across Minnesota?



*Photo: Shared-Use Mobility Center, Action Network*

## OUR APPROACH



To explore these focus areas, we utilized several methods of data collection.

- **Interviews:** We interviewed nine people who work closely on shared mobility partnerships in their job responsibilities. This included seven shared mobility leads from municipalities across Minnesota and two representatives from shared mobility companies who work closely with Minnesota municipalities on their partnership agreements. Initial interviewee names were provided to us by MnDOT. Subsequent interviews were sought out to include more geographical diversity, as well as perspectives from the shared mobility companies. All interviews were voluntary. They were conducted over Zoom and lasted between 30-60 minutes. Our team utilized an interview protocol, which included specific questions for each shared mobility lead and company representative (see Appendix). The questions were written by our team and then modified after our initial data analysis. Additionally, while we asked the same core questions, each interview was unique because of follow-up questions and ensuing discussions.
- **Meeting Observation:** We observed a monthly meeting for employees who engage with shared mobility services in their municipality or jurisdiction. This meeting took place in June over Microsoft Teams with about 15 attendees from across the State.
- **Partnership Agreements:** We collected and reviewed four public-private partnership agreements. In this review, we looked for content overlap,

differences, and other distinguishing features of the license agreements highlighted by the shared mobility leads in the interviews.

- **Literature Review:** We researched the topic of shared mobility public-private partnerships through peer-reviewed journal articles, reports, white papers, and other online resources provided by MnDOT.

To minimize bias, we developed a standard interview protocol for each interview type; one for shared mobility leads and one for shared mobility company representatives. We asked follow-up questions when we needed further clarification. It was important to our research team that interviewees felt comfortable sharing their full perspectives on their work with shared mobility public-private partnerships, including their frustrations. Additionally, we wanted to ensure their anonymity for continued and future partnerships with MnDOT and other partners in this space.

Our analysis consisted of re-watching each interview and categorizing statements into corresponding themes related to the three focus areas and research questions. Key themes and variations among interviewees emerged out of the coding processes. Similarly, we captured pertinent quotes from the literature review that tied directly back to the focus areas. This was an iterative process that built off itself. When a new finding emerged, we created an additional section in the interview notes document and added further supporting quotes from the interviews or literature. After the interviews, municipalities shared sample license agreements. These were reviewed, and key components from each agreement were then categorized and coded similarly to our interviews.

## **FINDINGS & ANALYSIS**

### **Municipalities & shared mobility companies have various goals**

Our research uncovered the importance of understanding the goals municipalities and mobility companies have related to shared mobility transportation. Many of them share similar goals in supporting shared mobility services in Minnesota. This is a noteworthy finding because it ties directly to focus area #3, around improving shared mobility partnerships. If cities want to have strong shared mobility partnerships, they need to develop their strategic goals regarding shared mobility transportation and align them with those of the shared mobility companies and vice versa.



*Photo: Minnesota Transportation Education and Outreach Center*

### Fill transportation gaps

Many shared mobility leads interviewed noted that shared mobility helps fill transportation gaps. Often, there is a gap in people trying to move from a central public transportation source such as a bus stop or light rail train to their home or other destination. Two municipalities noted transportation gaps in their as one of their goals related to shared mobility. As pointed out by an urban fringe municipality, “initial goals were around last-mile travel, so connecting people to transit or to wherever else.” In core city municipalities and first-ring suburbs, scooters and bikes help fill that role in assisting people to complete the first or last mile. In addition, as innovative bike and scooter share services became abundant in cities across the United States in the past decade, the literature also suggests that cities may be able to leverage these services to bridge the gap for riders trying to connect with the public transit system (National Aging and Disability Transportation Center, 2017; Saheen & Cohen, 2020).

Additionally, shared mobility can complement existing transit systems to fill transportation gaps. This is often done through the development of mobility hubs. Many municipalities commented on their plans to develop mobility hubs and how shared mobility services would fit into this infrastructure.

The shared mobility lead from an urban fringe municipality stated that the city is looking at how future shared mobility services could interact with their current systems. They are interested in connecting their existing infrastructure with new

shared mobility opportunities: “As we’re looking towards our next round of enhancements and upgrades, we’re going to be looking at trying to create more of a mobility hub model. So we’re leaving space for shared bikes, shared scooters, but also areas specifically for drop-off of people using Lyft or Uber.”

An urban fringe municipality shared a similar sentiment about integrating shared mobility into their existing infrastructure: “We have a lot of existing or planned bike infrastructure. We also have a really strong regional trail ridership, and unfortunately, during the entire time the Southwest Light Rail construction was happening, so a lot of those trails were closed, which I think ate into a lot of the opportunities we had.”

Findings from our literature review aligned with our findings from the interviews with shared mobility leads. However, the literature did highlight that for mobility hubs to be successful in allowing shared mobility to fill transportation gaps, a city must have three key characteristics: high population density, transit access, and walkability (*Shared-Use Mobility Toolkit for Cities*, 2016). Furthermore, in communities with all three qualities, the authors suggest that all types of shared-use mobility-on-demand systems have a high potential for filling transportation gaps. The municipality will have a well-developed embedded transit infrastructure with all three qualities. If a community lacks one or two of these essential qualities, the authors recommend strategically deploying select mobility systems.



Photo: Metro Transit

## Meet equity goals

The SUMC (*Shared-Use Mobility Toolkit for Cities*, 2016) completed research regarding equity and shared mobility. They found that lower-income neighborhoods often have the necessary elements for a shared mobility program; high population density, walkable infrastructure, and public transit access. However, these neighborhoods often lack any bike or car sharing opportunities, especially in minority neighborhoods. The literature review noted that low-income residents and people with disabilities often face obstacles and barriers when obtaining public transportation. These types of barriers can include where the service is located, when it operates, travel times, and cost. Many of the municipalities that we interviewed were interested in meeting equity goals and resolving some of these inequities.

Four of the municipalities that we interviewed stated that they want to ensure that shared mobility meets city equity goals. Due to the opposing goals of municipalities and shared mobility companies, this is sometimes difficult to achieve. As noted by some municipalities, private companies do not always work to achieve equity goals as their goal is more profit-driven. Two cities pointed out that the shared mobility companies often do not place bikes or scooters in low-income areas, even when specified in their contract.

A shared mobility lead from an urban fringe municipality stated, “[the shared mobility companies] were to place their scooters out, like equitably distributed. We had the city divided into three regions, and they had to follow that as part of a percentage of their total fleets.” In addition, this municipality went on to state, “making sure that anything that we run, that the benefits are spread throughout the city, and there are no disproportionate negative impacts.”

An additional equity lens is related to ensuring that shared mobility vehicles do not impede a city’s right-of-way and block passage for people with physical disabilities. For example, an urban fringe municipality interviewee noted: “One of the big concerns I would have and need addressing in our city code or with our Council members is how that interacts with our existing sidewalks and trails and making sure that they’re placed appropriately and managed so that we’re not impeding people with disabilities or the general movement of the public.”

One shared mobility company emphasized equity significantly. The company representative commented, “My job is to promote (shared mobility) to make it more accessible for our larger community, specifically majority BIPOC community and low-wealth communities. It’s one of our big focuses” (urban municipality).

The literature review outlined similar goals regarding equity. For instance, the SUMC wrote an entire report concerning equity. The report outlines the unique transportation needs of low-income and transportation-disadvantaged communities. These communities lead lifestyles that require a variety of transportation modes to meet their needs. For example, only providing a car sharing service could limit transportation options for those without a driver’s license or those with prior criminal convictions from enrolling in the program. However, adding ridesharing or bikesharing into these communities could support more community members and meet their transportation needs. The report goes on to say, “As the vehicle sharing and ride sharing industries work to make this vision a reality, now is a critical time to develop programs that will ensure equitable, accessible mobility for all.” (Equity Shared Mobility Services, Shared Mobility Center, 2019, p. 5). By exploring partnerships a variety of shared mobility services, Minnesota municipalities can provide accessible transportation to all communities, particularly those in low-income or transportation-disadvantaged areas.



Photo: Metro Transit

### **Promote green alternative transit modes**

MnDOT is very interested in developing more “green methods” of transportation and reducing carbon emissions. Likewise, three interviewees also stated that their municipalities want to create or promote alternative transit modes for environmental purposes. One shared mobility lead stated, “Another [goal] was promoting alternative ways of travel, other than your personal vehicle” (urban municipality). One municipality was looking towards the future, noting the city’s projected growth over the next 20 years. They have concerns about parking, congestion, and the ensuing environmental issues: “It all has to fit together... position ourselves to early adopters. Ability to innovate and get greener. Find the ability to take on these transit opportunities that will reduce congestion” (urban municipality).

Articles from the literature suggest that shared mobility services can support and advance environmental initiatives. For example, “... micromobility has the potential to meet climate-change goals by reducing greenhouse gas emissions, extending the reach of transit and providing first-and last-mile connections, mitigating transit congestion and core capacity issues, and reducing car reliance in low-density areas or late at night when many agencies provide limited or no service” (*Transit and Micromobility*, 2021).

### **Offer amenities to visitors and residents**

Finally, two of the municipalities noted that some cities view shared mobility as more of an amenity to visitors and residents. One interviewee stated that “I wouldn’t say [shared mobility services] necessarily fit a part of the city’s transportation planning objectives. They’re essentially treated as an amenity; a recreational amenity available to residents and guests” (urban municipality). Another interviewee stated that “A lot of cities are looking at micromobility as a kind of a cool thing, a nice offering to complement transit. But I don’t believe everyone has the same view of it” (urban fringe municipality). Shared mobility, therefore, is seen less as a transportation method and more as a recreational activity.





*Photo: Metro Transit*

### **Types of Business Models**

Understanding the types of business models outlined in the partnership agreements between municipalities and shared mobility companies was one of the focus areas for this project. We learned that municipalities want to make informed decisions when entering into a license agreement with a shared mobility company. Knowing and understanding the various models can help shared mobility leads make those informed decisions on what model is best for their community. This knowledge of the different business models also elevates a municipality's negotiating power with shared mobility companies.

In examining the shared mobility partnership agreements, we found that municipalities predominantly operated under a partnership model known as Design Build Finance Operate Maintain (DBFOM). Others operated under a long-term lease agreement model (Mallett & Driessen, 2021). Both of these agreement types involve the ongoing participation of a private partner in managing the shared mobility business. The literature we reviewed also suggests that DBFOM is the most commonly used model of public-private partnerships (DeWitt et al., 2021, 2). Long-term lease agreements, also known as leasing arrangements, asset recycling, or asset monetization, are also a common partnership model.

Below, we describe each of these types of models:

**DBFOM** partnerships involve a private company constructing, providing, operating, and maintaining the service, including long-term financing. The private sector is repaid either by users, through fares, or by payments from state or local governments during the contract period. An example of this partnership is between the City of Minneapolis and Lyft. The private operator, Lyft, is responsible for building the shared mobility fleet, financing the business, and maintaining the vehicles. Lyft pays the City of Minneapolis for each device docking station over the yearly lease period. They also pay a city licensing fee to operate within Minneapolis. Lyft then collects additional revenue from the users.

**Long-Term Lease Agreements** are when a public entity owns a transportation asset, such as a fleet of cars or bikes, and then leases this asset to a private company to operate and maintain the transportation program. The private company then collects revenue during the lease period for its services (DeWitt et al., 2021, 6). An example of this model is a shared mobility agreement between the City of St. Paul and HOURCAR. The City of St. Paul owns the car share fleet called Evie, and HOURCAR operates the program. The City of St. Paul then contracts HOURCAR. Within this contract, the City of St. Paul pays the parking costs, such as metered spaces or permits, in exchange for HOURCAR operating the program and meeting equity targets.

Different cities use different types of models. For example, an area with a sprawling metropolitan area with regional collaborative government coordination but with a very different shared mobility business model than the Twin Cities is the Chicago area. Nearly all shared mobility partnerships in Minnesota have a yearly licensing fee, but Chicago provides a long-term license with one main vendor. In addition, Chicago offers public funding to the vendor in support of expanding their infrastructure and their accessibility goals.

Both models have advantages and disadvantages for the municipalities and shared mobility companies. For example, in the DBFOM model, municipalities do not have to spend their own money on building a transportation fleet, nor are they responsible for operating and maintaining the infrastructure. DBFOM is a model for municipalities that want to offer shared mobility services but do not have the resources or time to dedicate to the upkeep of the program. The DBFOM model gives companies full control over their fleet; however, it involves significant upfront costs and continued payment to the

municipalities to operate. Additionally, companies must meet specific compliance requirements, limiting their ability to operate freely in the marketplace. One mobility company interviewee noted, “I have a boilerplate of requirements, and I can’t change any of them, so you have to conform to all of these requirements. Which I think most operators will do. We want to participate. We want to be there, but those will hold you back in some ways” (urban municipality). They went on to say that:

City and regulators are very risk averse, and because this is a world in which private companies are predominant, there’s this feeling of ‘let’s make the bar as high as possible so that if anything and everything happens, it’s going to be on them.’ But there’s a tipping point at which we can’t make that work. And it is in some ways inhospitable to being able to provide the service. So not having that co-collaborator relationship, having more of this pure license approach means that you’re not going to have that longer-term partnership as a result. Because at some point one company drops out, another comes in; it will always be in flux.

Moreover, because DBFOM business models often operate under a yearly lease, as stated above, companies and municipalities alike spend much of their time negotiating the terms of the agreement. An interviewee from a shared mobility company noted, “When you’re on annual cycles, you’re spending a third of the year just contracting.”

Long-term lease agreements can be beneficial to both the municipality and the shared mobility company. However, entering into a long-term lease agreement with a shared mobility company can be risky for a municipality without an established relationship with trust and commitment to the community. In some Minnesota cities, the public charter only allows yearly lease agreements with shared mobility companies. However, year-long pilot agreements could be helpful before establishing longer-term leases. This allows shared mobility companies to operate within a municipality, meet their equity obligations, and show their ability to meet other compliance requirements. A shared mobility lead from one of the urban municipalities is hopeful that they can use the learnings over the past few years with various shared mobility companies to then choose to partner for a longer-term agreement. They shared, “We want to have more consistency for these companies, so they’re going to be here in the longer term.”



*Photo: Lyft*

Mobility companies are also in favor of longer-term lease agreements. They see value in deepening partnerships to meet transportation goals that are mutually beneficial to both the municipality and the company. One mobility company noted, “In a world with the year-to-year, four-to-five companies, it’s not going to get you those outcomes because I think everyone’s very focused on ‘how do I see survival in the marketplace?’” (urban municipality).

Our data suggest that one of the reasons business models are slightly different between municipalities is because of the varying interest from shared mobility companies to enter into certain markets. For example, urban fringe communities struggled with getting interest from various companies, not giving them much negotiating power regarding their fee model. In contrast, urban municipalities with high-density areas had interest from multiple shared mobility companies in their RFP process, allowing them more negotiating power when creating the licensing agreements.

### **Predominant Components within Business Models**

The interviews unveiled several prominent components within each licensing agreement. Each of these components had slight differences across each municipality.

#### **Fee structures are similar with small variations**

Most public-private partnerships in Minnesota with shared mobility companies have a fee structure associated with using the city’s right-of-way. One municipality only charged a yearly licensing fee, while others charged a per-vehicle or per-ride

fee. In exploring the advantages and disadvantages of these fee structures, one municipality argued that by implementing a per-ride fee structure, they incentivize the mobility company to be more active in the maintenance and replacement of vehicles through the licensing period. In addition, they noted, “it encourages them to be more mindful of rebalancing and making sure that the scooters are charged because they don’t make money if they’re not being ridden” (urban municipality).

One municipality had a partnership agreement with an electric vehicle charging company. The municipality received lease revenue from the company for each charging station as well as revenue when the charging station was used, based on the length of use. This partnership was an example of a DBFOM: “The company installing the chargers - they own, operate and maintain the chargers. And then they charge for their use. We get revenue based on leasing the charging area to them, as well as a utilization bonus” (urban fringe municipality).

Additionally, for municipalities interested in starting a new shared mobility initiative, such as car sharing or autonomous shuttles, municipalities were more likely not to charge fees but rather give the company other perks such as free parking in metered locations. One municipality simply saw value in positioning Minnesota as an early adopter of new ideas and technologies and allowed a pilot program to run without any fees or exchange of capital.



*Photo: Henry Pan/Minnesota Reformer*

### Complaint response sits with mobility companies

Another common component across partnership agreements was the responsibility for responding to complaints. It was essential to the mobility leads to outline in the agreements who was responsible for responding to complaints, including a timeline and a penalty fee structure if complaints weren't handled in a timely fashion. For example: "Mobility companies were to respond to any scooters that were in dangerous places, or we had gotten complaints from someone. They were supposed to get in within a 24-48 hour period" (urban fringe municipality).

Additionally, partnership agreements include how complaints are handled. For example: "The city's [responsibility] was to field all complaints and be the go-between between residents and the mobility providers" (urban fringe municipality). Smaller municipalities received very few complaints, which was, therefore, not a burden to the shared mobility leads who often fielded the complaints before the shared mobility company handled the situation. For example, one interviewee said they never had to use their outlined process for impounding vehicles. They said, "We have a process for impounding vehicles. We never had to use it. But we have a specific dollar amount and process for that to be kept and charged; fined and returned" (urban fringe municipality).

However, larger municipalities had an overwhelming amount of complaints, making the complaint process important to articulate in the licensing agreement. One municipality noted, "We also have the challenge of dealing with a lot more public complaints than any other city or jurisdiction does" (urban municipality). Nonetheless, community members are not aware that under the licensing agreement, the shared mobility companies are the entity responsible for sending and resolving complaints. As a result, the shared mobility leads can be inundated with complaints and get more public scrutiny than the companies. One shared mobility lead noted, "We also get the scrutiny of individuals in the public who do not understand how the technology works and do not understand how the licensing works with the city and the relationship that we have with these providers. We are giving them a license to operate in our right-of-way. We do not have full autonomy or control of every single thing that they do in the city" (urban municipality).



*Photo: Shutterstock*

### Data sharing is common but can tell different stories

Shared mobility usage data can be very valuable to the municipalities. While each mobility company has a dashboard for the shared mobility lead to access, additional data sharing was tricky. For example, “The mobility folks are supposed to provide the city with ridership information, placement [of the fleet]” (urban fringe municipality). Nonetheless, some municipalities still struggled to access more real-time information or data that was reliable or presentable. They added, “Some vendors are better at providing good data that I have confidence in... than other vendors” (urban fringe municipality).

Municipalities struggled with analyzing data beyond the provided dashboards from the shared mobility companies. “Minneapolis seems to be the only one that could be completely on top of it. Basically, everyone else didn’t have the capacity or the expertise to do it well. We were able to do it, but we never had to actively use it” (urban fringe municipality).

Some municipalities that do have the capacity to receive and analyze the raw data from shared mobility companies found it important to tell stories with data. For example, one municipality noted:

What we found is that we have not been able to find any dashboard or third-party aggregator that can actually comply with our State law and our city’s policies around privacy and aggregation. The problem is a lot of these third-party data aggregators are working with these companies and using them to lie to us... Having that raw data to be able to analyze on our own

means that we know what the source of truth is and don't have to take someone else's word for it. (urban municipality)

**Government Support is needed for implementing successful public-private partnerships:**

Shared mobility leads identified desires for government support, as outlined below:

**Committed elected leadership**

Governing bodies within each municipality play a significant role in shaping shared-mobility agreements. Successful and ongoing contracts require that a city council fully support developing shared-mobility agreements. Without buy-in from elected leadership, the shared mobility agreement process will most likely fail. One municipality stated that "This was something our City Council really wanted. We wanted to be the first suburb to have micromobility out in the suburbs." They also noted, "Our Mayor is a lobbyist and a super go-getter and made all kinds of contacts and suddenly we had people at our door who wanted to do a deal."

However, because elected leaders hear directly from their constituents, they can be easily influenced to not support partnerships with shared mobility companies. One of the urban municipalities is struggling with this dynamic. They noted, "There is a very very very small group of people who are very very very loud, and they are driving the conversation..." In addition, this city indicated that wealthier white citizens often reach out directly to city council members to complain, and their complaints center around younger BIPOC residents using the shared mobility service.



*Photo: Minnesota Historical Society*



In addition, based on research and interviews, elected leaders must consider developing an effective Request for Proposals (RFP) and contracting process. Without such a regulated process, contracting work becomes confusing to both vendors and city employees. Elected leadership should also consider working with other municipalities in a more extensive RFP process. However, to ensure success, agreements must be developed with all participants before the process starts. One shared mobility company interviewee stated, “It’s hard when we have to go jurisdiction by jurisdiction in a piecemeal fashion. It’d be great to have the sum be more than its parts.”

Our literature review also noted that one of the main challenges is overcoming the current silos in the public transportation sector. There are many levels of government in transportation which include state agencies, transit agencies, and metropolitan transit agencies, all having different structures, purposes, cultures, and jurisdictions. The Twin Cities Shared Mobility Action Plan, put together by the McKnight Foundation and SUMC, outlines these complexities noting, “The public right of way is managed by a complex web of local, county, regional and state governments with varied and sometimes overlapping responsibilities, which will make efforts to coordinate this work difficult but critical” (Randall, 2017).

#### **Lack of financial subsidies**

As in most new ventures, money is a concern for municipalities to provide shared mobility services. The municipalities interviewed noted that MnDOT had not provided funding for shared mobility services. Several of the municipalities stated that financial subsidies would provide more incentive for developing shared mobility services.

Two municipalities referenced the lack of funding. An urban fringe municipality interviewee noted, "Either cities will have to figure out how to run these programs on operating dollars, which I know is really tight for a lot of communities, or they have to set aside money and subsidize it. Because the companies aren’t willing to pay for it and some other kind of revenue source is going to have to be put together to make it, especially if you’re a suburb, more viable for the companies to come in.” Another urban fringe municipality interviewee noted that funding was the reason they have not started a shared-mobility service in their community:

“We aren’t at a point where we want to pay a provider to come into town, but we are open to piloting a project. We are very much open to shared mobility, but we’re just not at the point yet where we want to put our own dollars into having it here because we’re not sure how successful it would be.” They went on to argue that if shared mobility fits into the larger transportation goals of MnDOT, then more funding and support would be beneficial: “If MnDOT sees shared mobility as a tool for meeting some of their climate goals...it would be a function of how can we as a region create a model that is successful and that doesn’t push costs or force regulation down to the local agencies.”

In cases where public funding is provided, shared mobility is a much higher priority. For example, one urban municipality received a large appropriation from the Minnesota legislature for the city to meet a designated purpose. The interviewee noted: “In 2016, there was legislation passed that [the municipality] referred to as the DMC where [the municipality] was appropriated \$586 million. Millions [dollars] of private-public partnerships. Quite a few partnerships that were related to transportation...eventually getting a rapid transportation system to downtown.”

### **Fragmented Knowledge Sharing:**

The shared mobility leads identified needs for information sharing, as outlined below.

#### **Monthly Call**

Six of the seven shared mobility leads interviewed knew about the monthly Minnesota Shared Mobility conference call. This is a meeting of municipalities that discuss developments around shared mobility partnerships, predominantly bike and scooter share programs. “It was originally led by Minneapolis, and then folks slowly started to trickle in from other agencies. It was originally just Minneapolis, St. Paul, the University, and then a couple of suburbs, but it’s certainly grown over time” (urban fringe municipality).

The shared mobility leads value this conference call because this is a platform for them to network with their colleagues from across the state, update municipalities on their work, and learn from others’ experiences. “It was a lot of everyone teaching each other how to do what we’re doing since it was so new, and

providing information for each other. Also, understanding how different companies are operating or finding out the main staff person just left. That's good stuff to know as you're trying to communicate with other people" (urban fringe municipality). Our data suggest that these monthly calls with municipality employees who work in the shared mobility space are a vital component of continued knowledge sharing.

#### **Lack of Centralized Repository of Information & Tools**

Municipality employees are very knowledgeable. Nevertheless, each lead had various expertise related to the shared mobility industry. This has led to shared mobility expertise across Minnesota municipalities being fragmented. As an urban fringe municipality reflected, "I think the gap I have is mostly around the implementation and the lessons learned. For example, 'these are the challenges you should be prepared for' or 'some of the things that we've tried that don't work' or 'some of the things that we've tried that worked really well' so once you get into either negotiation or an actual contract, these are things to think about" (urban fringe municipality).

Three interviewees identified a need to standardize tools and templates to make these documents available in a central document repository. Municipality employees offered ideas like "a centralized website that someone hosted that had a lot of that information" (urban fringe municipality), and "it would be great to have a link for information that is posted...love to have a folder with links and files" (urban municipality). Specifically, regarding the Request for Proposal process, one municipality noted, "There was no set system, no standard form for it. Everyone did it wildly differently" (urban fringe municipality).



*Photo: Shutterstock*

## RECOMMENDATIONS

Our data suggest that municipalities are tasked with implementing and regulating shared mobility services with limited resources. Therefore, our overarching recommendation to MnDOT is to seek investment opportunities from the federal and state government so that MnDOT can devote more public funding to shared mobility services. We were informed that a concurrent research report is being delivered to MnDOT soon that explores opportunities to expand public investment dollars to fund shared mobility services. Our data support this endeavor. Specific recommendations on how these investments are directed are as follows.

### **Educate shared mobility leads on shared mobility**

From our interview and observation findings, the monthly call with shared mobility leads provides a helpful platform for municipalities to come together and share information with peers. However, not all shared mobility leads across Minnesota are aware of or attend these calls. As one interviewee suggested, “Maybe try expanding the reach of the information to other planning and engineering and public works departments. The more of us who have at least a background in it and can talk to it, the more likelihood that we might be able to see something regionally be successful. It might be good to try and target different groups to be part of [the monthly call]” (urban fringe municipality). Also, our data suggest that some shared mobility leads aren’t well-versed enough in the predominant business models to negotiate a maximally beneficial partnership agreement. Our recommendation would be to try and recruit more shared mobility leads to attend this monthly call. However, if the call becomes too big or if the information does not apply to all types of municipalities, consider break-out sessions based on municipality size, agreement types, or other creative ways to engage smaller groups around specific topic areas.

Beyond the monthly conference call, our interviewees expressed a desire for shared resources and standardized processes as outlined in the data above. Shared mobility leads could benefit from a centralized repository for knowledge sharing. Our recommendation is for MnDOT to identify an entity to implement and manage this centralized repository.

Shared mobility public-private partnerships have become a well-studied topic over the last several years. Because of this, nonprofits such as the Shared Use Mobility Center (SUMC), started in 2014, have become a reliable resource for municipalities and other organizations looking to learn more about shared-use mobility. For example, the SUMC has a tool called the [Micromobility Policy Atlas](#), where users can search policies that outline “operating rules like parking and use of bike lanes; fleet size limits, fees, and fares; equity plans and requirements; data standards, communications, and geofencing guidelines; and links to original policy documents” (*SUMC MLC: Mobility Learning Center: Micromobility Policy Atlas*, n.d.). By utilizing platforms and resources that are already available, MnDOT and other municipalities can save time and resources. Therefore, our recommendation would be for the MnDOT to inform shared mobility leads about readily available resources.

### **Consider single-vendor licenses & longer lease agreements**

Services from shared mobility providers vary from provider to provider. Our data suggest that single-vendor, longer-term agreements would expand services and aid in meeting a municipality's transportation goals. From a user's perspective, multiple providers in one city can be confusing if the technology is not integrated. Furthermore, a longer-term agreement could integrate an equity program and set financial targets based on the provider's ability to make their vehicles available to all populations in the municipality.

From a shared mobility provider's perspective, longer-term leases could aid in meeting the municipalities' transportation goals, as summarized in our data findings. A provider stated, "We really think those [5-10 year] long-term partnerships are essential so we can set up collaborative relationships where we are investing in services in a way that helps our local partners meet their transportation goals" (mobility company). Furthermore, "Establishing a shared vision of the mobility system that they want and articulating 'here's what we're willing to put into it,' whether that's resources, infrastructure, thinking new about processes" (mobility company).

Our recommendation for cities that are seeking to complement their existing public transportation infrastructure and meet their transit accessibility goals would be to change their annual lease policies to allow for longer lease single-vendor licenses.

### Explore a regional mobility system

Every municipality interviewee expressed that they have limited resources to implement shared mobility programs. Although the employees have little time to dedicate to this portion of their job duties, they appreciate opportunities for collaborative information sharing with colleagues from other municipalities. As one interviewee expressed, “Frankly this is a relatively small part of my job so I don’t dedicate a great deal of my time to it” (urban municipality). Another interviewee suggested,

What would be great is if it was just a regional mobility system so then we don’t have to micromanage this at a local agency level. Because it’s a patchwork system with everyone having different regulatory or legal frameworks. ... If the state legislature ever ends up making state laws about [shared mobility], I could see that being helpful. (urban fringe municipality).

Furthermore, during the monthly conference call, we learned that a groundbreaking attempt at an agreement across four entities in the Twin Cities is delayed by discordant regulations between cities, and the final agreement may end up looking vastly different than the original vision. Based on these findings, our recommendation is for the Metropolitan Council to take the lead in planning cohesive policy and implementation strategies in the Twin Cities metropolitan region and for MnDOT to offer additional resources to support employees who are tasked with this work across the state.



*Photo: Katie Henly*

## FURTHER EXPLORATION

Our research project was narrow in scope. Therefore, we offer a set of future research opportunities below.

- **Comparative Analysis**

Our team was able to do a small case study on the Chicago metropolitan area; however, a more extensive comparative analysis could be beneficial. Specifically, if MnDOT or other municipalities are considering single-vendor, publicly funded transit contracts, diving deeper into other cities' licenses, and speaking with the shared mobility leads in municipalities where they have worked out a single-license agreement with one company would be recommended.

- **Rural Perspectives**

To understand the unique shared mobility challenges faced by rural communities, further research is necessary. For example, interviews with shared mobility leads within rural municipalities and an additional literature review to understand what types of shared mobility services work in rural communities and the business models outlined in the partnership agreements.

- **Partnership Agreement Comparison**

We reviewed four partnership agreements between various Minnesota municipalities and shared mobility companies, but more agreements exist and should be examined more closely to understand the similarities and nuances between shared mobility services and municipality types. Out of this comparison, a shared mobility template agreement could develop.

- **Community Involvement**

One shared mobility provider commented on the importance of including the community in their decision-making process. They said, "Involving the community early and often" (mobility company) was important to them. As these services develop, we recommend a future research project to examine the use of community engagement principles and approaches to enhance shared mobility programming.

## CONCLUSION

Our data suggest that the best-recommended course of action is for MnDOT to partner with the Metropolitan Council to provide public funding and a framework for knowledge-sharing to shared mobility programs in the Twin Cities region and across the state. Maintaining the status quo can make only a limited impact on improving accessibility to climate-friendly transportation. Such recommendations are well suited to achieve the long-term transportation goals for the Minnesota Department of Transportation.



*Photo: Nice Ride MN*



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## APPENDIX: INTERVIEW PROTOCOL

### Interview Questionnaires

#### Interviews with Municipalities

1. What is your role in [City Name]? Can you explain how your city has or currently engages with private mobility companies in the shared mobility space?
  - a. Have you worked on any public-private partnerships? If so, what types of partnerships? What business model(s) have you used in the public-private partnerships to date (i.e. per-vehicle or annual fee, support for program costs)?
  - b. What are your goals related to shared mobility?
  - c. What is unique about your community and the challenges of shared mobility?
2. Are there any issues that have come up when partnering with private mobility companies? What issues would you like your city to address regarding shared mobility agreements?
3. How are you currently communicating with transit agencies across Minnesota and with MnDOT? Where do you have information gaps with the state and regional transportation offices?
4. What do you need from MnDOT to effectively create public-private partnerships with shared mobility companies?
5. Is there anything we have not asked or addressed that you would like to share with us?

#### Interviews with Companies

1. What is your role in [Company Name]? How many agreements do you have with cities in Minnesota related to shared mobility?
2. What are the various business models for each partnership? Are certain models more effective/successful than others?
3. What are your goals in partnering with municipalities across Minnesota?
4. How are they working? What issues are you encountering?

5. How do you communicate with MnDOT, municipalities, and other transit agencies when creating public-private partnerships across Minnesota? (ask for each entity separately)
  - a. MnDOT:
  - b. Municipalities:
  - c. Transit Agencies:
6. What could strengthen shared agreements or help develop agreements in different municipalities in Minnesota?
7. Is there anything we have not asked or addressed that you would like to share with us?




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