MCOTA March 2022 Newsletter - DRAFT

This email newsletter is an effort by the [Minnesota Council on Transportation Access (MCOTA)](#) to provide periodic updates about its initiatives to the public and to interested stakeholders. Please let us know what you think by contacting Tom Gottfried at tom.gottfried@state.mn.us.

Spotlight on TNC partnerships in Minnesota

Transportation Network Companies (TNCs)—like Lyft and Uber—have provided rides to millions of people all over the United States for the last several years. In Minnesota, three different partnerships with Lyft now allow even more people to get where they want and need to go.

Dakota County

Hoping to reduce transportation barriers for older adults and residents with disabilities, Dakota County's Transit Coordination Assistance Project (TCAP) forged a partnership with Lyft in March 2019.

The program began with 23 riders and grew very quickly—as of July 2021, more than 750 individuals were a part of the program, according to Dakota County Social Services transportation coordinator Robyn Bernardy.

1Photo: Dakota County

The flexibility and on-demand nature of Lyft is part of what has made it so successful, since other transportation options are bound by general services areas, limited days and hours of service, and require significant pre-planning.

Dakota County's riders take an average of 19 trips each month. "What surprises me most is that people talk about the normal places they go with our Lyft program—just regular everyday things like the mall, to work, grocery shopping, and to friends' houses," says Bernardy. "Really basic things many of us take for granted are life-changing for others."

Feedback has been so positive (81 percent of riders report that Lyft has reduced their transportation barriers), Dakota County signed a new contract that will allow for wheelchair accessible vehicles to be a part of the Lyft platform.

The county also utilizes Lyft Concierge for Jail Releases and for individuals transitioning out of shelter.

Washington County

Before the pandemic, Washington County residents who had children in child protection, received mental health services, or participated in recovery services frequently struggled to attend court hearings. County social workers would give them rides, but this would take time away from other caseloads.

In October 2019, Washington County partnered with Lyft to help provide transportation. The pilot proved so popular it soon expanded to include intellectual and developmental disabilities, crisis response services, shelter, and workforce development staff.

"Social workers and passengers have reported significant satisfaction with the ease of setting up trips, the quality of the ride, and the relative spontaneity that Lyft affords," said Sheila Holbrook-White, former mobility manager for Washington County.

In 2021, the county's Public Health and Environment Department joined the program to connect residents with COVID testing and vaccination.

County staff has deployed Lyft for more than 1,300 trips. Most of the rides have been for medical treatment, followed by visitation between parent(s) and children, and employment-related rides.

Between October 2019 and August 2021, social workers were able to divert 581 hours of what would have been driving time—a diversion that yielded $26,139 in value-added services to individuals, families, and the county.

Sheila Holbrook-White is no longer with Washington County. Barbara Bursack is the current Washington County Mobility Manager.

ConnectAbility

ConnectAbility—a St. Cloud-based nonprofit that provides services to people with disabilities and senior communities around Minnesota—recognizes the lack of transportation in rural areas across the state.

"We want to take the same concepts of Dakota County's Lyft program and evolve them into something that will work in communities that have no drivers,

no riders, no Lyft, and no opportunity to break some of those barriers," says Sheri Wegner, executive director of ConnectAbility.

Currently ConnectAbility is working to create a network of drivers by introducing this opportunity to social service organizations and county case managers, and by using word of mouth.

They are also filming videos on rider safety and how to use Lyft that they'll post free to their website so any organization across the state can use them in their own communities.

Wegner says because a lot of people in rural Minnesota don't have reliable internet, ConnectAbility will partner with Lyft to offer their concierge service. This will allow them to put individual riders with individual drivers and schedule rides for up to seven days—all without needing online access or a smartphone.

"The whole purpose of this program is the transformational effect for people," says Wegner. "On a farm, you might be 10 miles from town on a gravel road, and you are 100 percent isolated if you have no transportation. So building this program in these small communities will be absolutely life-changing."

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Arrowhead RTCC: Bringing Stakeholders Together to Share and Respond

Arrowhead RTCC meetings provided a platform for traditional and non-traditional transportation stakeholders to share agency updates, challenges and resources. During the pandemic, meetings helped the participants to communicate best practices and resources for safety, rider trust and agency collaboration.

Thanks to its partnerships, the RTCC also shared vital information about transportation options with communities. It distributed its transportation provider directory to health care agencies in the region, helping them identify active transportation providers during the pandemic, as well as 2,000 copies of the RTCC's DTA *How to Ride a Bus Guide* to agencies in the region.

A focus group with members from Arc Northland's People First inspired the guide when they talked about their first experiences with transit and their thoughts on essential information for new transit riders. The DTA provided photos and general information on using their buses.
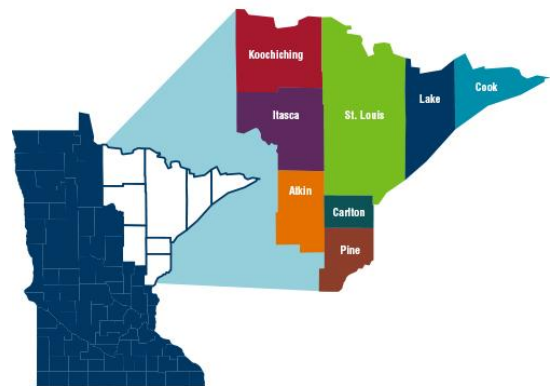
In another initiative to communicate the region's transportation options, Arrowhead RTCC also launched a website that includes a comprehensive transportation provider directory, transportation resources, information on volunteer drivers, park-and-ride locations and active transportation resources.

Northwest RTCC: Understanding Barriers

By attending meetings of the Alliance for Mental Health Initiative, Lynnell Simonson Popowski learns more about the transportation barriers that community members in the seven-county region face. The alliance brings together the directors of social services and other providers of mental health services under the direction of Shannon Abrahamson of Alumina, formerly Northwest Mental Health Center.
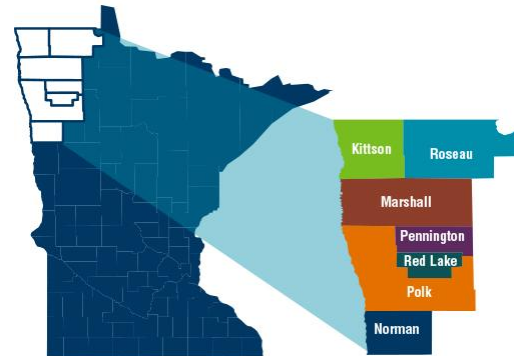
The alliance was planning an event that involved a 5K walk/run, E-Race the Stigma, and speakers for September Suicide Prevention and Awareness month. The event ended at 9 p.m., but buses quit running at 8:30 p.m..

"I brought the need to Tri-Valley Transportation Program contact, Marcia Haglund, who offered to keep the buses running an extra hour to be sure people could get home from the event," said Simonson Popowski, regional transportation coordinator, Northwest Regional Development Commission. "The organization then offered to provide the rides to and from the event, for free. This benefit was advertised throughout the area with the marketing materials."

When it appeared that no one took advantage of the offer, it prompted an important discussion about the barriers that prevent those who most need to participate from using public transit.

"We talked about the need for travel training and the options currently available through Tri-Valley Transit," she said. "I found that even though this might look like a less-than-successful effort, we used it as a learning opportunity. I think the group was pleased that we could dig deeper into the real needs of their clients and provide resources they did not know were available. We will be arranging travel training opportunities in each county this year and tracking any new transit riders by providing them with a special bus pass."

Adding autonomous vehicles to ride-hailing fleets could benefit platforms and drivers

In recent work, researchers in the University of Minnesota's Department of Industrial and Systems Engineering (ISyE) examined one potentially important application of autonomous vehicle (AV) technology: ride hailing.

The ride-hailing industry, which currently relies mostly on independent drivers using conventional vehicles (CVs), has shown a particular interest in AV technology. "Several of the leading platforms, such as Uber and Lyft, are making substantial investments in the research and development of AV technology," says McKnight

2Photo: Shutterstock

Presidential Endowed Professor Saif Benjaafar, the lead investigator of the project.

Under most scenarios, Benjaafar says, the introduction of AVs will be gradual, and ride-hailing platforms will operate a mixed fleet of AVs and CVs. His research team, consisting of doctoral student Xiaotang Yang and postdoctoral fellow Zicheng Wang, examined how the deployment of a mixed fleet could affect a platform's operational decisions. For example, how many AVs would it operate and how many customers would it serve? Which vehicles would it assign to which customers? How would it reposition vehicles to reduce idling time? The team also examined how these operational decisions would affect drivers and riders.

In the team's model, the CV drivers decide where to position themselves between rides. The platform decides the wage it pays the drivers and controls the AVs, the size of the AV fleet, and the position of idled AVs. The platform can also decide how many rides to accept and whether to prioritize AVs or CVs in assigning vehicles to customers.

Among the findings, an important takeaway is that adding AVs can significantly alter how the platform manages CV drivers and customer demand. "In ride-hailing systems without AVs, repositioning drivers from a low-demand location to a high-demand one is costly for the platform," Yang explains. "With a mixed fleet, the platform would deploy AVs for these customer requests instead of rejecting them."

Drivers would get the assignments that AVs can't fulfill. "Perhaps surprisingly, prioritizing AVs this way can be, under some conditions, beneficial to both the platform and the drivers," Wang says. "More drivers could be deployed to high-demand locations. If AV purchase costs are moderate, AVs could complement—not replace—CVs."

Perhaps the most important takeaway, Benjaafar says, is that the impact of AVs can be nuanced and crucially depends on both the fixed and variable costs of AVs and CVs. AVs have a fixed cost (the purchase cost), but CVs have only a variable cost—the payments to drivers when they have a customer on-board.

"The importance of cost structures opens the door for possible regulations to induce more socially desirable outcomes," Benjaafar says. "For example, a regulator could affect these costs via subsidies, taxes, or the use of direct limits on the mix of AVs and CVs deployed."

Even when the cost of AVs is relatively high, which is most likely in the short run, adding AVs to the fleet could expand customer demand and improve operational efficiency. This would not only maximize profits for platforms and drivers, he says, but also make ride-hailing service an option for more people in more communities.

The research was funded in part by the National Science Foundation under the grant "SCC: Leveraging Autonomous Shared Vehicles for Greater Community Health, Equity, Livability, and Prosperity (HELP)." A full report—*Autonomous Vehicles for Ride-Hailing* (Elsevier, 2021)—can be downloaded through the SSRN E-Library.

More Information

- [Autonomous Vehicles for Ride-Hailing, SSRN E-Library, Sept. 2021](#)
- [SCC: Leveraging Autonomous Shared Vehicles for Greater Community Health, Equity, Livability, and Prosperity (HELP)](#)

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In the news

Below is a sampling of recent news and research on transportation technology, equity, and sustainability that are relevant to transportation access in Minnesota. Several of these are from [weekly alerts curated by the MnDOT Library](#).

- [To reduce traffic congestion, increase local micromobility](#)
  Governing (March 3, 2022)
- [USA's largest ever public autonomous shuttle deployment announced in Jacksonville](#)
  Traffic Technology Today (March 3, 2022)
- [What does it take to make the switch to an electric vehicle?](#)
  WCCO CBS Minnesota (March 1, 2022)
- [Experts: Local areas should make EV charging plans](#)
  Government Technology (February 24, 2022)
- [Walkability won't solve neighborhood health inequities](#)
  Popular Science (February 28, 2022)
- [Twin Ports readies for historic transit makeover in 2022](#)
  Duluth News Tribune (February 18, 2022)
- [State agencies deploy surveys for transit coordination](#) (MnDOT and others)
  AASHTO Journal (February 18, 2022)

- Transportation council serving Willmar, surrounding area works to create a system open to all
  West Central Tribune via Mass Transit (February 11, 2022)
- Charging Forward: A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure (USDOT, February 2022)

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Upcoming MCOTA meetings

MCOTA usually meets bimonthly on a Wednesday from 1:00 to 3:00 p.m. In accordance with recommendations from the State of Minnesota to help slow the spread of COVID-19, upcoming meetings will be remote only. The meetings are open, and members of the public are welcome to attend. Each meeting includes time for public comments. See the MCOTA website for more details.

- May 25, 2022, 1:00 to 3:00 p.m.
- July 27, 2022, 1:00 to 3:00 p.m.

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About MCOTA

The Minnesota Council on Transportation Access was established by the Minnesota Legislature in 2010 to "study, evaluate, oversee, and make recommendations to improve the coordination, availability, accessibility, efficiency, cost-effectiveness, and safety of transportation services provided to the transit public."

www.CoordinateMNTransit.org