Considerations for TNC Partnerships: Seniors and Individuals with Disabilities

Federal Transit Administration

December 2018

About the National Center for Mobility Management (NCMM)

The National Center for Mobility Management is a national technical assistance center funded through a cooperative agreement with the Federal Transit Administration, and operated through a consortium of three national organizations—the American Public Transportation Association, the Community Transportation Association of America, and Easterseals Inc. The mission of the Center is to promote customer-centered mobility strategies that advance good health, economic vitality, self-sufficiency, and community.

At Easterseals, we provide direct services across the lifespan. Whether you're the parent of an infant or toddler with developmental delays or an older worker in need of rehabilitation and employment training, Easterseals is here for you. Learn more at Easterseals.com and find out what we can do for you and your family. We're here to change the way the world defines and views disabilities, by making positive, profound differences in people's lives every day.

About the Shared-Use Mobility Center (SUMC)

The Shared-Use Mobility Center (SUMC) is a public-interest organization working to foster collaboration in shared mobility (including bikesharing, carsharing, ridesharing and more) and help connect the growing industry with transit agencies, cities and communities across the nation. Through piloting programs, conducting new research and providing advice and expertise to cities and regions, SUMC hopes to extend the benefits of shared mobility for all. Visit SUMC's website to see all of our resources.

NCMM & SUMC Collaboration

This information brief represents a collaboration between NCMM and SUMC in response to the informational needs of our respective audiences. Funds from Easterseals, an NCMM partner, were used to support this work. Questions regarding this brief can be directed to Judy Shanley at Easterseals.

Introduction

Recent technological advances have driven an unprecedented expansion of the menu of transportation services, especially through the integrated set of tools and services together known as Mobility on Demand (MOD).

Public transit agencies are increasingly turning to MOD for help providing convenient, accessible transportation for their customers who are seniors or people with disabilities, often through public-private partnerships (P3s) with shared mobility providers. While they are still required to maintain ADA complementary paratransit service, an increasing number of agencies are pursuing P3s as a way to improve service levels and customer experiences for paratransit services and beyond. However, successfully implementing mobility P3s, especially with transportation network companies (TNCs) such as Uber and Lyft, can prove to be more complicated than they might initially appear.

Mobility on Demand (MOD) An integrated and connected multimodal network of safe, affordable, and reliable transportation options that are available and accessible to all travelers. [FTA Office of Research, Demonstration and Innovation]

Transportation Network Companies Transportation providers such as Uber and Lyft are codified in California law as Transportation Network Companies, or TNCs, creating a term now widely used as shorthand for these services (also variously called ridesourcing, ridesharing, or ridehailing). TNCs provide online platforms to connect passengers with drivers and automate reservations, payments, and customer feedback. Riders can choose from a variety of service classes, including drivers who use personal (non-commercial) vehicles; traditional taxicabs dispatched via the providers' applications; and premium "black car" services with professional livery drivers and vehicles. TNCs have become one of the most ubiquitous forms of shared mobility. See TCRP Research Report 188: *Shared Mobility and the Transformation of Public Transit* http://www.trb.org/Main/Blurbs/174653.aspx

This brief provides a framework for public agency stakeholders considering shared mobility P3s, to ensure that new partnerships are built from the beginning to include people with disabilities, including people in wheelchairs. While written with TNCs in mind, many of the discussions can be adapted for projects centered on other shared modes, such as microtransit or carsharing. Ultimately, planning for people with disabilities and seniors early in the process can help assure beneficial, accessible, and equitable service for everyone.[1]

The brief is organized as follows: first it addresses the need for public engagement; then it examines how an agency can lay the groundwork for an accessible TNC partnership. Finally, the full body of considerations is presented in the form of a concise checklist; this final section also includes a list of additional resources and information sources.

[1] This report uses "individuals with disabilities" and "people with disabilities" interchangeably, per the Federal Transit Administration's Section 5310: Enhanced Mobility of Seniors & Individuals with Disabilities funding guidelines: https://www.transit.dot.gov/funding/grants/enhanced-mobility-seniors-individuals-disabilities-section-5310

I. Public Engagement

Public engagement can be especially valuable for public transportation projects that target seniors and individuals with disabilities. The resources below offer both general guidance and, through case studies and model policy from analogous programs, offer possible pathways for strategically engaging the public. While agencies are often adept at reaching these specific groups of people, the information below show that rider feedback can be valuable for properly shaping services using limited resources.

The National Aging and Disability Transportation Center published an Information Brief on the *Coordinated Transportation Planning: Requirements, Strategies and Tools for Meaningful Engagement for Older Adults and People with Disabilities. The brief* specifically addresses the best practices especially for agencies that receive Section 5310 (Enhanced Mobility for Seniors and Individuals with Disabilities) formula funding. The publication also provides a background on the evolving Federal provisions that relate to public engagement, beginning with the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for People (SAFETEA-LU) in 2005, through the current Fixing America's Surface Transportation (FAST) Act. [2]

The Transportation Research Board has published two studies that address public engagement, one for transit projects in general, and another for communicating specifically with people with disabilities.

> Synthesis 89, *Public Participation Strategies for Transit: A Synthesis for Practice* (2011), outlines the requirements and challenges for conducting such outreach and offers case studies relevant to people with disabilities and seniors.[3] While the study shows that most agencies believe that they are reaching the two subgroups, probably due to contact information for ADA and reduced fare accounts, it does reveal other challenges, such as how to solicit input and/or communicate service changes and how to best deploy limited resources to conduct the most effective outreach. The case studies from the Sunset Empire Transportation District (Oregon) and Laketran (Ohio) are perhaps most helpful to these concerns, as they address on-demand and other modes that serve senior riders and riders with disabilities.

Although somewhat dated in technological terms, TCRP Synthesis 37, *Communicating with Persons with Disabilities in a Multimodal Transit Environment: A Synthesis of Transit Practice* (2001), still provides a helpful overview of the range of stakeholders, their concerns as revealed in surveys, and broad strategies for engagement.

Another source for all aspects of public engagement planning is an information brief by the Texas Transportation Institute's *Measuring the Performance of Public Engagement in Transportation Planning: Three Best Principles* (2012). The three principles, according to the authors, are that a project is 1) accessible *(see footnote what*

---

[2] National Aging and Disability Transportation Center (2016) *Coordinated Transportation Planning: Requirements, Strategies and Tools for Meaningful Engagement for Older Adults and People with Disabilities*: https://www.nadtc.org/resources-publications/coordinated-transportation-planning-information-brief-requirements-strategies-and-tools-for-meaningful-engagement-for-older-adults-and-people-with-disabilities/. For more on the 5310 program: https://www.transit.dot.gov/funding/grants/grant-programs/section-5310-%E2%80%93-enhanced-mobility-seniors-and-individuals-disabilities

[3] Transportation Cooperative Research Program (TCRP) Synthesis 89 *Public Participation Strategies for Transit: A Synthesis of Transit Practice* (2011) available at: http://www.trb.org/Publications/Blurbs/165652.aspx. See also Synthesis 37 *Communicating with Persons with Disabilities in a Multimodal Transit Environment* (2001) http://onlinepubs.trb.org/onlinepubs/tcrp/tsyn37.pdf

accessible means in this case), 2) engaging, and 3) outcome-oriented. The scorecard, which is shown below with example goals and results within these three principles, can be readily adapted to the public engagement process of most projects.[4] The Public Engagement Performance Scorecard with metrics below can help explain and garner support for the future project.

Public Engagement Scorecard

Principle	Objective	Measure	Goal [5]	Results
Accessible[6]	All who wished to participate had the ability to do so without an undue burden	Individuals felt they were able to participate without an undue amount of trouble	—	—
		Individuals who declined to attend, did so out of choice and not inability	—	—
		Individuals felt comfortable providing input in at least one of the platforms utilized	—	—
		Individuals felt the platforms facilitated their attendance and participation	—	—
	Events were democratic and representative of the population	Individuals attending the events roughly represent the population	—	—
Engaging	The process fostered an environment favorable for input and collaboration	Individuals felt their opinions were heard and valued	—	—
		Individuals felt the process encouraged collaboration	—	—
		Individuals felt the activities were engaging	—	—
	The process was ongoing	Individuals used the feedback mechanisms	—	—
Outcome-oriented	The input provided from the public influenced the decision-making process	Individuals felt their opinions would influence the decision- making	—	—
	The process successfully engaged the public	Individuals felt the engagement process, as a whole, was successful	—	—

Source: Wagner, *Measuring the Performance of Public Engagement in Transportation Planning: Three Best Principles*

The Houston-Galveston Area Council's *Gulf Coast Regionally Coordinated Transportation Plan: Public Engagement and Outreach Plan* (2016) demonstrates the application at a regional level of many of the

[4] Here, and in the table below, "accessible" is meant broadly to convey the goal of engaging as many stakeholders as possible. Follow this link directly to the scorecard: https://groups.tti.tamu.edu/planning/files/2013/01/Measuring-the-Performance-of-Public-Engagement-in-Transportation-Planning-Three-Best-Principles-FINAL.pdf#page=12

[5] The original table included target percentage numbers, but they are removed here for clarity.

[6] See note 3, above, for discussion of "accessible"

abovementioned strategies. It provides both an outreach plan that includes both a full range of stakeholders and a brief on the stakeholders and their ties to funding resources. It also includes a timeline for outreach activities.[7]

The engaged people reached through public outreach can serve as a valuable resource throughout the pilot or program, offering feedback that might help shape the project throughout its life-cycle.

II. Considerations for Programs: Ways Agencies Might Prepare for P3s

Before entering into a public-private partnership (P3), agencies should be aware of federal requirements for all public transportation projects, including shared mobility operations.

The Federal Transit Administration hosts two web pages—"Shared Mobility Frequently Asked Questions" and "Shared Mobility FAQs: Americans with Disabilities Act (ADA)"—that introduce the requirements for shared mobility partnerships.

Accessibility is measured on a program level, not on a vehicle level, meaning that both vehicles for ambulatory people and WAVs may be used. Any provider, however, "stands in the shoes" of the agency *(see section IV Partner Service Requirements for further explanation)*.[10] The FTA states that regardless of what on-demand services an agency might provide, they must maintain their continued obligation to provide public transit in accordance with ADA requirements. In practice this means that most agencies must continue to provide ADA complementary paratransit service, reserved on a next-day basis. It also states that any on-demand service must provide equivalent, wheelchair-accessible service.[11]

"Stand in the Shoes" Requirement

The "stand in the shoes" doctrine is derived from the Stark Law for physicians of Medicare/Medicaid patients prohibiting self-dealing of referrals and services. Here, the physicians stand in the shoes of any entity with which they have a financial interest.[8]

The Federal requirements for transportation that public agencies ensure that their private partners meet service provision requirements: *This section requires private entities to "stand in the shoes" of public entities with whom they contract to provide transportation services. It ensures that, while a public entity may contract out its service, it may not contract away its ADA responsibilities. The requirement applies primarily to vehicle acquisition requirements and to service provision requirements.*[9]

[7] The Gulf Coast Regionally Coordinated Transportation Plan (2016): http://www.h-gac.com/taq/regionally-coordinated-transportation-plan/documents/Appendix-A-Public-Engagement-Plan.pdf (see especially pages 14-15 of pdf).

[8] See 42 CFR 411.354 - Financial relationship, compensation, and ownership or investment interest. https://www.law.cornell.edu/cfr/text/42/411.354

[9] 49 CFR Appendix D to Part 37 Sec. 37.23 Service Under Contract. In their 2006 Notice of Proposed Rulemaking "Clarification of § 37.23" the FTA states that an: "'arrangement or relationship' other than a contract includes arrangements and relationships such as grants, subgrants, and cooperative agreements. The additional words, which are consistent with an interpretation of the existing language that the Department recently posted on its Web sites, ensures that a passenger with a disability will be provided the appropriate level of service, whether a private entity providing the service does so through a contract with a public entity or otherwise receives funding through the public entity." https://www.gpo.gov/fdsys/pkg/FR-2006-02-27/pdf/06-1658.pdf#page=5

[10] FTA FAQ pages: https://www.transit.dot.gov/regulations-and-guidance/shared-mobility-frequently-asked-questions;

[11] See USDOT Secretary Foxx's December 2016 Dear Colleague Letter regarding the obligations of agencies in TNC partnerships at http://policies.sharedusemobilitycenter.org/#/policies/891 and https://learn.sharedusemobilitycenter.org/overview/usdot-dear-colleague-letter-re-ada-shared-mobility-2016/

A. Complete Trip and Safety Provisions for Facilities

There is an increasing understanding of the need to ensure that every part of a trip is accessible for individuals with disabilities, including wheelchair people, and older adults. For projects such as TNC partnerships that address first and last mile needs, this means accessible transit facilities to support transitions between modes. A first mile/last mile service is not feasible if a TNC drops off a passenger with a mobility disability at a transit stop with uneven terrain or obstacles in the path of travel. As agreements with shared-use providers are established, agencies should assess the entire trip that passengers might take.

Together, the resources below address ways to create safe complete trips. The principle, if successful, will "assist customers in getting to their destinations in the most efficient and least stressful way."[12] For the purposes of this brief, complete trips means that both the wayfinding/trip planning and physical environments are navigable and safe for riders with disabilities and older people.

1. Federal Standards for Facilities Design

Accessibility standards for federally funded programs were one of the earliest and most important precedents for the Americans with Disabilities Act. Any public facility is required to meet accessibility standards, and those standards should be present throughout a trip as seen in the Complete Trip standards, above.

The 2010 ADA Standards for Accessible Design outlines the revised regulations for Titles II and III of the Americans with Disabilities Act of 1990. These standards are enforceable by law and must be considered for all new developments. Accessible features include, but are not limited to, entrance design, accessible routes, accessible restrooms, and other accessible amenities, such as telephones, drinking fountains and parking.[13]

2. Guides for Creating Accessible Facilities and a Safe Right-of-Way

While the accessibility of the facility design is well documented many transportation facilities do not support an accessible complete trip. Researchers for the Transportation Cooperative Research Project found that, while vehicle accessibility for fixed-route service is nearly one-hundred percent, there exist many barriers to a seamless trip from origin to destination. In the words of the report's authors "accessibility gaps remain, particularly regarding access to and from fixed-route transit service. Incomplete sidewalks, difficult street crossings, lack of curb ramps, and obstacles in the pathway such as utility poles create barriers for riders with disabilities, limiting or preventing access to fixed-route transit service." Additionally, bus stops are particularly prone to poor design. In their survey of transit agencies, the authors found that the respondents ranked themselves low marks for the effectiveness of current efforts.[14]

---

[12] For more, see the NCMM brief "The Complete Trip: Helping Customers Make a Seamless Journey" https://nationalcenterformobilitymanagement.org/wp-content/uploads/2013/11/1_Complete_Trip_Final.pdf

[13] See: https://www.ada.gov/2010ADAstandards_index.htm

[14] See Chapter 5, Thatcher, R., Ferris, C., Chia, D., Purdy, J., Ellis, B., Hamby, B., ... & Golden, M. (2013). *Strategy Guide to Enable and Promote the Use of Fixed-Route Transit by People with Disabilities*. TCRP Report 163 (No. Project B-40): http://www.trb.org/Publications/Blurbs/170626.aspx

The same TCRP report provides additional guidance on how to improve fixed route facilities. The following provide additional resources that can offer practical planning advice for agencies looking to create a safe physical space through the entire trip:

- Improving Pathways to Transit for Persons with Disabilities looks at several case studies and the measures that they have taken to create more universally designed transit facilities.
- Safe Routes for Older Adults discusses safe routes organized around the "Six E's": Evaluation, Equity & Empowerment, Education, Engineering, Enforcement, and Encouragement. The report also offers lists of available resources and examples for implementation.
- The National Aging and Disability Center's NADC Trends Report on "Seamless Mobility" shows how infrastructure and technology can work together to provide a complete trip for all people, if planned correctly.[15]

A first mile/last mile, or other transit connecting, MOD project might present an opportunity for an agency to pilot and improve its complete trip connections.

3. Local Examples

A number of agencies have incorporated mobility on demand into their larger plans for safe and equitable transportation. Denver's plan for "seamless mobility" articulates the strategy in a compelling way by tying safety goals, new mobility, and accessibility issues together.

- The Maricopa Association of Governments' *Designing Transit Accessible Communities* study includes public engagement and specific recommendations for complete trip improvements.[16]
- "Denver's Mobility Action Plan" in some ways extends the "seamless mobility" mission to bring Vision Zero goals of "zero traffic-related deaths and serious injuries by 2030," climate action (largely through commute trip reduction), and accessibility into a single strategy. In this spirit of intersectionality, it specifically aims to "eliminate barriers and increase access to smart technologies and mobility services for everyone, including low-income residents, underserved neighborhoods and people with disabilities." [17]

A. Project Service Area

If an agency is establishing a partnership with a TNC or other private mobility provider through a pilot project, it is important to keep the scope and study area in mind. An MOD pilot in Kansas City, where the microtransit provider Bridj set an unrealistically ambitious ridership target, never gained traction and ultimately was discontinued. SUMC's analysis of the pilot identified other potential issues related to service replication and cost. The lessons learned under that project, however, helped KCATA launch the RideKC Freedom On-Demand

[15] See study homepage: https://transweb.sjsu.edu/research/Improving-Pathways-Transit-Persons-Disabilities. Study download: https://safetrec.berkeley.edu/sites/default/files/srfoa_042518_final.pdf. NADTC: https://www.nadtc.org/wp-content/uploads/NADTC-2017-Trends-Report-Topic-Spotlight-Seamless-Mobility.pdf

[16] See Maricopa Association of Governments: https://www.phoenix.gov/streetssite/Documents/MAG_Designing-Transit-Accessible-Communities-Study-Final-Report.pdf.

[17] City of Denver Mobility Action Plan: https://www.denvergov.org/content/dam/denvergov/Portals/728/documents/Denver's%20Mobility%20Action%20Plan_7.7.pdf.
City of Denver Vision Zero: https://www.denvergov.org/content/denvergov/en/vision-zero.html

pilot project in March, 2017.[18] This project leveraged their existing taxi contract for both ambulatory and WAV service to provide on-demand service and shared to both people with a disability and the general public, with varying subsidies. A surcharge for non-disabled riders is used to help fund the system.

An example of a pilot that had challenges in part because of an overly small service area may be seen in lessons learned from Centennial, Colorado's Go Centennial pilot. But in addition to the size of the service area, the Go Centennial project had other issues that impeded its success: the pilot was layered as an additional option on existing call-and-ride service, and the draw to shift behavior was not strong enough for people of the existing service to move to the new service in meaningful numbers. In their concluding report, the city also concluded that the study area was both too small, and not dense enough for effective service.[19]

III. Coordination with Other Services through Mobility Management

The TNC pilots mentioned here are transit agency launched and administered, and as such aim to work in concert with complementary paratransit to improve mobility in that space. Human services agencies, however,

The National Center for Mobility Management (NCMM) defines Mobility Management as "a customer-centered approach to finding transportation solutions for all populations with a particular focus on people with disabilities, aging populations, English language learners, low income communities, and other groups with unique needs." Mobility management principles are also embodied in the US Department of Transportation's vision of Mobility Services for All Americans.

Non-Emergency Medical Transportation (NEMT) is a specific category of human services transportation that, as the name implies, conveys patients to medical appointments. Medicaid has a provision for NEMT, though the service provision differs by state, which might affect coordination with other services.

run transportation programs, as well. Human services transportation includes such services as senior center transportation and the large, formalized (through Federal funding via Medicaid, etc.) area of non-emergency medical transportation.

Some human service organizations provide transportation service. For instance, Easterseals New Hampshire (ESNH) operates a fleet of 100 accessible vehicles, having developed a community transportation program as one of its core programs. In addition to providing access to local Easterseals services, the agency transports seniors and individuals with disabilities to community programs providing access to vital services that help support independence. The agency has been a local and regional transportation resource for human service

[18] See SUMC's analysist at: http://policies.sharedusemobilitycenter.org/#/analysis/58 and https://learn.sharedusemobilitycenter.org/casestudy/bridj-microtransit-shutdown/
[19] See SUMC's discussion of the pilot at: http://policies.sharedusemobilitycenter.org/#/analysis/63 and https://learn.sharedusemobilitycenter.org/casestudy/centennial-colorado-and-lyft-first-last-mile-pilot-project-review/

organizations, health care institutions, the State of New Hampshire Health and Human Services and many other organizations. ESNH was also instrumental in the development of the newest public transit system in New Hampshire. ESNH staff chairs the NH State Coordination Council for community transportation, sits on the New Hampshire Governor's Commission on Disability and works with transit providers and other human service organizations to maximize the efficiency and development of the local transportation network. The organization serves 2000 unduplicated consumers, traveling 2 million miles and providing 300,000 annual trips.

Mobility management methods hold the potential to help bridge what the FTA and other agencies see as the transportation coordination problem between transit programs and human services transportation. Partnerships such as those with mobility management networks and MOD projects mark the beginning of a move towards wider mobility management, but more coordination at the service dispatch level can leverage both the existing resources and new technologies and modes[20],[21].

Another possibility is for mobility managers to partner with a private operator to coordinate with TNCs. In one example, in addition to their work with health systems, the NEMT provider Roundtrip is partnering with the Greater Richmond Transit Company for the agency's CARE On-Demand program. This service provides one call/one click access (by phone, computer, or smartphone app) to the complete range of accessible services, allowing the user to choose type of service (scheduled or on demand) or vehicle needed.[22]

Mobility managers might partner with innovative business-to-business partnerships as additional providers in their wider operation. The Center for Health Care Strategies produced a fact sheet that explains the different models, from handling all operations in-house (requiring Managed Care Benefit partners to arrange or use public transit), to farming it out to transportation brokers or paying a fee for service. Newer private services such as Hitch partner with hospitals or medical groups to dispatch TNCs for transportation disadvantaged patients.[23]

While the respective agencies would continue to administer their services, the transit agency could coordinate "one click/one call" service.

A. Call Center/Trip Planning Integration

In planning partnerships with TNCs, agencies may want to consider the technological requirements of these partnerships. Mobility on Demand solutions can work in concert with planning for the "one call/one click"

---

[20] [NCMM call-out box]. NCMM provides a discussion in their brief "Mobility Management: Introduction, Implementation, Community Service and Seniors": https://nationalcenterformobilitymanagement.org/wp-content/uploads/Pdfs/Mobility-Management-for-Seniors-Implementation-and-Community-Service.pdf For additional discussion and case studies, see the US DOT's Mobility Services for All Americans (MSAA) initiative https://www.its.dot.gov/research_archives/msaa/index.htm

[21] [NEMT call-out box]. See the Henry J Kaiser Family Foundation pages at: https://www.kff.org/medicaid/issue-brief/medicaid-non-emergency-medical-transportation-overview-and-key-issues-in-medicaid-expansion-waivers/ and https://www.kff.org/medicaid/state-indicator/non-emergency-medical-transportation-services/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D. Also Government Accountability Office (2016), Nonemergency Medical Transportation: Updated Medicaid Guidance Could Help States. GAO 16-238: https://www.gao.gov/assets/680/674934.pdf

[22] See Roundtrip homepage: https://www.rideroundtrip.com/ and CARE On-Demand: http://ridegrtc.com/services/specialized-transportation/

[23] See: Ganuza, Adam and Rachel Davis (2017) "Disruptive Innovation in Medicaid Non-Emergency Transportation" at https://www.chcs.org/media/NEMT-Issue-Brief-022317.pdf. For Hitch: http://policies.sharedusemobilitycenter.org/#/policies/1059 and https://learn.sharedusemobilitycenter.org/overview/hitch-health-and...s-minnesota-2018/

integration envisioned by the USDOT's Mobility Services for All Americans (MSAA) program.[24] Bringing the services for people with a disability into a widely used mobility app, such as Uber and Lyft, or building on-demand paratransit service into an agency-branded trip planning app.

Examples of app integration include:

- The MBTA RIDE On-Demand (Boston, MA) pilot is integrated into the partners' apps. WAV options are available to eligible riders when they either logon or call the providers, directly. Per their contract, both the MBTA and the operators promote the service, but the interaction is outside of the agency's online presence. As of the writing of this brief the agency, which has extended the pilot multiple times, has not released its evaluation and report. Until then we cannot fully evaluate the effectiveness of the pilot project.[25] However, as in all projects, an agency needs to assess the availability of WAV vehicles especially in light of ADA requirements.
- DART (Dallas, TX), as part of their Go-Link service, is integrating universally accessible on-demand service into its trip-planning and payment app. The app brings in other modes such as carpool, and offers an opportunity to consolidate functions for the agency, such as data handling.[26]

If successful, the integration of services into a central call center and/or app can both provide efficiency for the agency, and if designed correctly, ease of use for the user. This is especially important for persons with cognitive disabilities. The National Center for Mobility Management maintains a clearinghouse page for one call/one click training.[27]

IV. Partner Service Requirements

The agency can help set the stage for the smooth operation of any service, but an agency entering into a partnership with a TNC should also consider that in the case of an "open door" operation the private entity stands in the shoes of the public entity as a service provider. As such, the agency is required to:

> have a process in place to ensure that equivalent service is provided, either by the private nonprofit that alters its vehicle fleet composition, or through a third-party contract or other arrangement with another subrecipient or contractor. In this case, the state or designated recipient is responsible for ensuring equivalent service in the service area. [28]

Currently, there are few examples from which to draw, as most relevant partnerships are in the pilot stage. Evaluations on the effectiveness of the pilots are forthcoming as of the writing of this brief, as are decisions on whether the pilots will be extended into more permanent programs. Even their challenges might inform how an agency might construct a partnership.

---

[24] MSAA homepage: https://www.its.dot.gov/research_archives/msaa/index.htm
[25] MBTA The Ride: https://www.mbta.com/accessibility/the-ride
[26] Dart Go-Link: https://www.dart.org/riding/golink.asp. See also this presentation for more on each element.
[27] NCMM One Call One Click Training: https://nationalcenterformobilitymanagement.org/one-callone-click-training/
[28] See USDOT FTA Circular FTA C 4710.1:
https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Final_FTA_ADA_Circular_C_4710.1.pdf#page=17

The Massachusetts Bay Transportation Authority (MBTA) RIDE On-Demand pilot subsidizes Uber and Lyft rides for paratransit-eligible riders in their system.[29] In the MBTA pilot, the TNCs are responsible for procuring WAV services. Uber contracts with a taxicab service that has WAVs available on a per-ride basis from Uber dispatch. Lyft contracts with a human services provider that has committed vehicles on-call during service hours. Each aims to provide equivalent service through the app, which hails each through the same interface.

Pierce Transit in the Spokane, Washington area is running a Federal Transit Administration MOD Sandbox pilot Limited Access Connections, a partnership with Lyft to provide first and last mile service to and from transit. The pilot program is free, and available in two areas. It is well-advertised to WAV passengers, although they must be accessed via phone dispatch. The transit agency is currently exploring how they might integrate all options into the agency's trip planning application. The agency is looking at multiple solutions, but plans a flat fare for all service.[30]

As of this writing, SUMC is aware of no larger TNC fleets that contained enough WAVs on their own to provide equivalent response times. However, New York City's 2018 TNC licensing regulations will require that WAVs must eventually comprise 25% of the vehicles operating in the local TNC fleet. Chicago adds a "Vehicle Accessibility Fund Contribution Fee" to each TNC trip, funds which will be used for accessibility initiatives.[31]

A. Include Provisions for Driver Training

A more comprehensive TNC partnership should include specific driver training to assist all people. These supports can focus on increasing driver sensitivity to the needs of individuals with disabilities and older adults and building understanding of the specific implications of varying disability conditions. The guidance can focus on the technical or practical implications of an individual's use of assistive technology or adaptive equipment, such as canes or wheelchairs. Several existing TNC-transit agency relationships include driver training in their agreements, but the most comprehensive training programs predate the partnerships. Washington, DC, has an incentive program through the for-hire-vehicle permitting program. Key components include:

- Successful completion of disability sensitivity and WAV training by the driver
- Trips with a negative rating or passenger complaints will not count to the bonus
- Drivers must be logged into DC TaxiApp when on duty
- A driver must complete a minimum 25 trips in a month during the pilot program

[29] See the SUMC analysis of the program at: http://policies.sharedusemobilitycenter.org/#/analysis/67 and https://learn.sharedusemobilitycenter.org/casestudy/mbta-ride-p3-partnerships-lyft-uber-and-centralized-call-control-center-for-paratransit-services/

[30] See Limited Access Connections page at: https://www.piercetransit.org/limited-access-connections/. Agency plans from conversations with agency as part of agency's participation in FTA's MOD Sandbox program.

[31] See the SUMC Policy Database entry on the For Hire Vehicle Accessibility Pilot: http://policies.sharedusemobilitycenter.org/#/policies/1020. See City of Chicago "TNP Factsheet" (2018): https://www.cityofchicago.org/content/dam/city/depts/bacp/publicvehicleinfo/publicvehicle/TNPLicenseFactSheetJan012018.pdf. There are provisions for the use of the Accessibility Fund in the Municipal Code of Chicago for . See Sec. 9-115-140: http://library.amlegal.com/nxt/gateway.dll/Illinois/chicago_il/title9vehiclestrafficandrailtransportati/chapter9-115transportationnetworkprovide?f=templates$fn=default.htm$3.0$vid=amlegal:chicago_il$anc=JD_9-115-140

- Trips can be hailed or dispatched via DC TaxiApp, UberTaxi, or Transport DC.[32]

Transit agencies and shared-mobility providers may want to reach out to local human services organizations, such as Centers for Independent Living or Easterseals, for content that can support training or to provide the training itself. Although the ideal would be for drivers to receive sensitivity training about the travel needs of individuals with disabilities and older adults, many community organizations produce informational materials that can be disseminated to drivers as a routine part of training and on-boarding.

The California Public Utilities Commission (CPUC), which licenses all TNC operations in the state, maintains a page that includes the training plans submitted by the operators. On June 27, 2018, Uber updated its "Accessibility at Uber" page, which gathers resources both for people with disabilities and drivers. Uber also offers optional training sessions in selected cities, at cost to the driver, for improving customer satisfaction.[33]

V. Performance Metrics and Data Agreements

All stakeholders will presumably want data on program performance, and most TNC permitting arrangements, as well as agency-led ADA complementary paratransit services, have data reporting requirements. However, the agency needs to decide what data will best assist its evaluation and planning efforts and the agency and TNC should work together to identify how those needs can be met. In many cases, TNCs are often reluctant to share detailed origin and destination level data for reasons of both customer privacy and competitive advantage.

This remains an ongoing conversation, and agencies should let the objectives of their agency/project guide their data needs and understand how private operators' business models would affect their willingness to share certain data or be optimal partners. Ultimately, the agency will need to balance their data needs—for planning, accounting, and performance monitoring for user services—with the responsibilities that come with handling the data.

Agencies will need to check their state public records laws regarding access to any data that is shared with them. Oregon is a case where the state adapted to provide an exemption to data that might violate the people's privacy. In 2014, TriMet developed an electronic fare collection system, Hop FastPass, that generated large amounts of travel pattern data. Yet, there were no protections against disclosure of data. TriMet supported the Oregon legislature to update laws to exempt travel pattern data in possession of transit agencies, citing the potential of disclosure to domestic violence offenders.

Personally identifiable information collected as part of an electronic fare collection system of a mass transit system is exempt from disclosure, except that this does not apply to public records that have attributes of anonymity that are enough, or that are aggregated into groupings that are broad enough, to ensure that persons cannot be identified by disclosure of the public records.[34]

---

[32] http://policies.sharedusemobilitycenter.org/#/policies/894 and https://learn.sharedusemobilitycenter.org/overview/incentive-program-for-for-hire-drivers-and-companies-that-complete-trips-in-wheelchair-accessible-vehicles-washington-dc-2017/

[33] See CPUC "TNC Accessibility Plan and Driver Training Program Details" at: http://www.cpuc.ca.gov/General.aspx?id=3046. Also, "Accessibility at Uber" at: https://accessibility.uber.com/

[34] Oregon Revised Statutes 192.345 Public records conditionally exempt from disclosure. "(c) As used in this subsection: (A) "Electronic fare collection system" means the software and hardware used for, associated with or relating to the collection of transit fares for a mass transit system, including but not limited to computers, radio

Overall, two concerns emerge: what data is needed, and how data is handled. The agency needs to decide what best serves their purposes. There is no Federal requirement for TNC partnerships to report data as of the writing of this report. Generally speaking, aggregated data is often suitable for planning purposes, but for auditing and accounting purposes more detailed level data is often required.[35] Transit agencies and TNCs can work together to identify the necessary level of data needed to both provide service and for reporting purposes.

Another example of the result of these negotiations might be found in MBTA's RIDE On-Demand program. The TNCs are required to provide both aggregated trip pattern data and customer service satisfaction and top-3 most common "issue types" (i.e. complaints). [36]

In interviews and experience convening the parties to many partnerships, SUMC has observed that a common point of discussion is the stewardship of the data. Frequently accompanying this concern is the TNCs' particular anxiety about proprietary business information, both about its service and its customers. The business competitiveness and customer privacy concerns are especially important when negotiating pilot partnerships that include a broader, general-public ridership.

A promising model for incorporating mobility service providers' data into the larger data framework, while avoiding some of the private-data challenges described above, is one where public entities never hold private operators' disaggregated data. Instead, it would be held by the operator or a trusted third-party repository under strong legal and technical protections and a clear access agreement. The public entities would be guaranteed access to "views" of the data at the levels needed for accomplishing its work and doing appropriate performance measurement.

One form of the trusted third-party model being tested at the University of Washington Transportation Data Collaborative (TDC).[37] This model combines an understanding of how to balance the needs of public and private stakeholders with the institutional capability and technical capacity of a major research institution—capacity both in terms of technical know-how and of the sheer storage capacity and computing power needed to handle massive and ever-growing data flows.

VI. Marketing

The first rule of marketing is to "know your customer," and this requires extra attention on the part of the agency when coordinating TNC partnerships for individuals with disabilities. While TNCs can reach their existing

---

communication systems, personal mobile devices, wearable technology, fare instruments, information technology, data storage or collection equipment, or other equipment or improvements. (B) "Mass transit system" has the meaning given that term in ORS 267.010. (C) "Personally identifiable information" means all information relating to a person that acquires or uses a transit pass or other fare payment medium in connection with an electronic fare collection system, including but not limited to: (i) Customer account information, date of birth, telephone number, physical address, electronic mail address, credit or debit card information, bank account information, Social Security or taxpayer identification number or other identification number, transit pass or fare payment medium balances or history, or similar personal information; or (ii) Travel dates, travel times, frequency of use, travel locations, service types or vehicle use, or similar travel information." (ORS 192.345(38))

[35] see: http://policies.sharedusemobilitycenter.org/#/policies/1044 and https://learn.sharedusemobilitycenter.org/overview/data-standard-fo...-california-2018/

[36] See: http://policies.sharedusemobilitycenter.org/#/policies/1033 and https://learn.sharedusemobilitycenter.org/overview/lyft-and-uber-agreements-mbta-boston-2016/

[37] See homepage at: https://www.uwtdc.org/

customers through their promotional channels, agencies tend to have better outreach to people with disabilities, and materials demonstrating their use with their modes. MOD pilots often attempt to reach underserved populations, and other people who might have been underserved by new mobility. Ideally, the public agency and TNC can combine their skills to better reach the intended user base, and clearly communicate the service's availability.

All new-mobility projects require not only basic marketing to alert the core audience of their existence, but also instructions for use. Agency programs and pilots for people with disabilities might draw upon existing resources, such as travel training programs, to encourage use of the program.

It is critical for the agency and the private partner to coordinate their marketing efforts in order to present a clear message. The agency likely possesses better resources for communication to a wide user base of people with disabilities, as well as the ability to produce materials that communicate to specific populations, such as in braille. Once an inventory of resources is established, the agency and the private partner can coordinate their outreach according to their respective strengths.

A. Marketing Materials

Agencies should seek the input of the disability community to ensure that their outreach materials are developed in accessible ways. Communication content should be clear, concise, and appeal to the rider preferences and perspective so diverse audiences can access and understand the service. Agencies should explore ways to make relevant language, braille, large print, or other formats available. For printed materials, the Center for Urban Transportation Research-USF has produced *Designing Printed Transit Information Materials: A Guidebook for Transit Service Providers*.[38]

Pierce Transit posts prominently on their Limited Access Connections program (mentioned above) homepage a demonstration video that serves as both a marketing piece and travel training material. Additionally, the video is archived on You Tube.[39]

As technology advances, and marketing integrates into new platforms, agencies should look to the USDOT's Accessible Transportation Technologies Research Initiative (ATTRI), which shows how new technologies can help accessibility.[40]

B. Travel Instruction

Here again, TNC pilots may draw upon existing resources, in human services, transit agencies, and the TNCs themselves, to educate individuals about the service. This can be a way to expose the potential market to the service, as well as identifying ways that the program or pilot might be more accessible.

[38] See: https://www.nctr.usf.edu/pdf/77710guidebook.pdf
[39] See: https://www.piercetransit.org/limited-access-connections/ and https://www.youtube.com/watch?time_continue=1&v=TCQCI9-YUOk
[40] ATTRI homepage: https://www.its.dot.gov/research_areas/attri/index.htm

Independent living centers and organizations that work with people with developmental disabilities may offer travel instruction programs. Agencies may want to leverage the knowledge and resources afforded by these organizations to ensure their programs are accessible.[41]

Austin's Capital Metro agency found that their Pickup microtransit pilot program—though not a TNC, it shared many similarities, such as app-based, on-demand, non-fixed route service—had heavy use by seniors and people with disabilities (27% of all riders used the wheelchair lift). Seniors, however, were largely using phone dispatch rather than the app, despite a majority owning smartphones. The agency worked with senior centers, which already were educating seniors, and incorporated travel app training, and found senior "super-people" to help spread the word.[43]

Just as accessible physical facilities are necessary for all people to make a trip, so too are outreach, marketing collateral, and wayfinding to alert and educate people on the new service. While this applies to all public transportation, accessible information is especially important for TNC programs and pilots, which do not always have a centralized location where information might be posted.

Travel Instruction

Travel instruction is the professional activity of teaching seniors, people with disabilities, or other travelers how to ride fixed-route public transit independently and safely.1 This practice brief provides an introduction to the components of a travel instruction program, strategies and tools for implementation, and links to additional information sources. Travel instruction consists of three distinct activities:

- Transit orientation explains transportation systems by sharing information about trip planning, schedules, maps, fare systems, mobility devices, and benefits of service. It may be conducted in a group setting or one-on-one.
- Familiarization teaches people who are experienced with traveling about a new route or mode of transportation. It may be conducted in a group or one-on-one.
- Travel training is an intensive, one-on-one process to help someone gain the knowledge and skills needed to make trips independently. Travel training is individualized to meet each student's unique needs. Travel training is the primary focus of this brief. Travel instruction is not the same as Orientation and Mobility (O&M) training for people with visual impairments. O&M training can include travel instruction, but also covers a number of other skills.42

VII Conclusion

Partnerships with TNCs offer exciting opportunities for agencies that want to move towards providing mobility on-demand for their people, especially for riders with disabilities. Effective implementation of a program or pilot, however, requires attention to considerations for riders with disabilities starting with public engagement and including communication and marketing strategies, and a commitment to ensuring that the program is capable of serving all persons with disabilities. The framework above might assist an agency to consider the program characteristics that create a high-quality and inclusive service for all

[41] See, for example this national resource for seniors: https://www.ageinplacetech.com/blog/finding-training-seniors-new-smartphones-tablets-and-more

[42] See: Massachusetts Mobility Management Center *Practice Brief Series, "Travel Instruction,"* August 2016: https://www.mass.gov/files/documents/2017/10/31/Travel%20Instruction.pdf

[43] See, for CapMetro Pickup: https://www.capmetro.org/About-Capital-Metro/Media-Center/News-Stories/2017-News-Stories/4294969763/. Austin also has a larger study of "digital inclusion.":

riders. The following section includes additional resources and references, and a checklist, to further assist agencies to build a framework for a partnership with a TNC.

VIII. Checklist for Public Agencies Looking to Partner with TNCs

The following checklist summarizes the content of this white paper. It is intended for transit agencies and others involved in providing services for people with disabilities and seniors to consider prior to entering into a Public-Private Partnership with TNCs.

A. Public Involvement Informs Service Design

- Have human services organizations, including people with disabilities and seniors informed the process?
- Are there ways for individuals with disabilities and older adults to continuously provide feedback as the service is rolled-out?

B. Ways Agencies Might Prepare for P3s

a. Complete Trip and Safety Provisions for Facilities Inventoried

- Have we considered the path of travel and accessibility of any facilities that are part of this new service?

b. Project Service Area Determined

- What data and information are we using to make a decision regarding the scope of service?
- How do we know these are valid data to use to inform the breadth of service?

C. Coordination with Existing Services, using Mobility Management

- Does the service meet Federal requirements for program accessibility?
- Is this service aligned with rider needs identified through a community mobility management network?
- Has a mobility manager been involved in the planning, design, and implementation of the partnership?

D. Call Center/Trip Planning Integration Explored

- Have we thought about how this new program will integrate in existing technologies that relate to how riders learn about or schedule service?
- Are any new technologies being considered accessible to individuals with disabilities?

E. Agency's Vehicle Choices Accommodate All People

- How are we making a decision about what kind of vehicles to use for the new service – are these accessible?
- Does our vehicle choice align with fleet needs and expected growth of ridership?

F. Partner Service Requirements

a. Agreement Includes Provisions for Driver Training

- How are drivers oriented regarding the needs of riders with disabilities?
- Are we working with human services organizations in our community to develop support materials?

https://austintexas.gov/sites/default/files/files/Telecommunications/Digital_Inclusion_in_Austin_April_2_2015.pdf

G. Performance Metrics and Data Agreements Signed

- Have we identified the data that is important to ensuring success of this program?
- Do we know how and when these data will be collected?
- Have we integrated the need for data collection and sharing in partnership agreements?
- Is there agreement across all involved in the program about the need and uses of data?

H. Marketing Plan includes Travel Training and Coordinated Marketing Materials

- Are our communications and marketing materials accessible and universally-designed?
- Do use a variety of communication channels and dissemination forums to ensure we are reaching a diverse range of human services and community organizations?

IX: Further Reading

Easter Seals/NCMM: The National Center for Mobility Management develops briefs on current topics in the field of mobility management. Each brief serves as a tool for building this growing field. NCMM maintains a library of briefs that people may access at: https://nationalcenterformobilitymanagement.org/ncmm-products/

Shared-Use Mobility Center: The Shared-Use Mobility Center homepage includes resources on all aspects of mobility on demand and shared mobility. The Policy Database and the Learning Center are the standard reference on the subject, and other resources range from case studies and action plans to the seminal, peer-reviewed studies in the field. SUMC's homepage is found here: http://sharedusemobilitycenter.org/

The **Federal Transit Administration** provides guidance on the Americans with Disabilities Act on their homepage, as well as for Shared Mobility. The FTA's homepage may be found at: https://www.transit.dot.gov/

The Coordinating Council on Access and Mobility (CCAM): A partnership of Federal agencies working to build ladders of opportunity across America by improving the availability, quality, and efficient delivery of transportation services to people with disabilities, older adults, and people with low incomes. The CCAM page is found at: https://www.dol.gov/cgi-bin/leave-dol.asp?exiturl=https://www.transit.dot.gov/ccam/about&exitTitle=www.transit.dot.gov&fedpage=yes

---