

PROVIDING COST-EFFECTIVE, HIGH-QUALITY PARATRANSIT SERVICE

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EXECUTIVE SUMMARY

People with disabilities use transit seven times as much as the general population. Unfortunately, existing service does a poor job of connecting them to work. Paratransit vehicles often arrive late and without the proper equipment. Riders sometimes are stranded for hours at a time.

As a result, people with disabilities are far more likely to be underemployed or unemployed, despite being 1.5 times more likely to be highly educated compared to the general population. This vexing problem led the Massachusetts Bay Transportation Authority (MBTA) to explore an alternative to traditional paratransit.

In an effort to increase customer satisfaction and decrease cost, the MBTA created a trial program using ride-hailing services Uber and Lyft. Four percent of all MBTA paratransit customers are involved in the trial, which gets high marks for rider satisfaction. Uber and Lyft receive a customer score of +85, while the MBTA's overall score is -11.

Unfortunately, the trial has been disappointing from a cost-saving perspective. The transit agency had hoped for savings of 10%–20% over traditional paratransit. In reality, at a subsidy of \$40 per trip, the savings have been only about 1%.

Minor changes to the program are needed to improve quality at a lower cost. For instance, riders should be encouraged or given incentives to use carpools, important trips to the

doctor's office should be prioritized, and those who provide better service should be allowed to charge more.

Still, MBTA's pilot program can and should serve as a model for transit agencies throughout the country. Policymakers have a golden opportunity to take the Massachusetts experiment, improve it, and make it a permanent approach to paratransit.

The improved paratransit program would operate much like the Boston-area pilot. The program would be permanent, and ride-hailing companies would provide all paratransit service in the metro areas. Paratransit would complement ongoing fixed-route transit.

To improve paratransit, transit agencies should do the following:

- Encourage Carpooling
- Refine paratransit priorities
- Tier paratransit costs

Policymakers and private transit operators can improve paratransit by doing the following:

- Provide special vehicles
- Work to provide appropriate insurance
- Allow non-unionized provision of federal transit services
- Seek cooperation with private transit providers

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OVERVIEW

The Americans with Disabilities Act (ADA), enacted in 1990, required that all transit agencies with fixed-route bus service provide paratransit service for people with disabilities.¹

Paratransit is another name for on-demand transit service, of which there are two types. The first type is offered to elderly and disabled riders who live in areas with fixed-route transit service that they cannot access. Generally, such service must be provided in the same geographic area and on the same days and hours when fixed-route services are available. The second type is offered to all residents in some rural communities without fixed-route transit systems.

There are differences between the two types. While the second type of service is available to everyone, it operates in a very limited number of areas. Additionally, there is no legal requirement to operate paratransit in rural areas, whereas paratransit for the disabled is required for regions that operate fixed-route transit service.

The ADA further specifies that paratransit fares may not exceed twice the fixed-route fares. Reservation systems must allow for next-day service, and restrictions cannot be placed on trip purpose.

[&]quot;An Overview of the Americans with Disabilities Act." Americans with Disabilities Act National Training. 2017. https://adata.org/factsheet/ADA-overview, September 4, 2018.

Unfortunately, paratransit service has not led to a major increase in mobility. Service quality is often low. Many customers complain of weeks-long waits for service or of being stranded for hours because a vehicle got lost or broke down.² On a scale of -100 to +100, customers rate paratransit service at -50 in terms of meeting their needs.³



Service quality is often low.... On a scale of -100 to +100, customers rate paratransit service at -50 in terms of meeting their needs.



Paratransit also is exceedingly expensive. The cost of a single trip can be \$55 or more, with the rider paying \$5 and taxpayers covering the rest.

The high costs, as well as rider dissatisfaction, have prompted transit systems to experiment with new services. The most promising is the partnership between the Massachusetts Bay Transportation Authority and Uber and Lyft.⁴ The Boston-area pilot partnership has proved to be a major success. Evidence suggests that the model could be used in metro areas across the country to improve transit service. Larger metro areas in the state could use the model for the elderly and disabled, while smaller metro areas could use it to eliminate fixed-route bus service.

LeMignot, Suzanne. "More Families Step Forward with Complaints About Paratransit." Chicago 2 CBS. September 2, 2016, chicago.cbslocal.com.

[&]quot;Watchdog: 2,500 Pages of DART Paratransit Claims Distressing." *The Dallas Morning News*. September 2014, dallasnews.com.

³ "2016 Public Transportation Fact Book." The American Public Transportation Association, February 2017. https://www.apta.com/resources/statistics/Documents/FactBook/2016-APTA-Fact-Book.pdf.

⁴ "On-Demand Paratransit Pilot Program." Massachusetts Bay Transportation Authority. 2017. https://www.mbta.com/accessibility/the-ride/on-demand-pilot.

UNDERSTANDING LIMITED TRANSPORT FOR THE DISABLED

Almost 20% of the U.S. population has a disability, which may prevent a commuter from using traditional transportation—driving, carpooling, transit, biking, and walking.⁵ While job placement varies based on disability, most major physical disabilities affect the workforce participation rate, according to a recent Utah State University study.⁶ Only 18% of people with disabilities are working compared with 64% of people without disabilities.



When Americans with disabilities do get a job, they often have trouble staying employed because of transportation challenges.



- ⁵ "Nearly 1 in 5 People Have a Disability." U.S. Census Bureau. July 25, 2012. https://www.census.gov/newsroom/releases/archives/miscellaneous/cb12-134.html.
- Bascom, Graydon. "Transportation Related Challenges for Persons with Disabilities Social Participation." Digital Commons at Utah State University. May 2017. https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=6315&context=etd.

When Americans with disabilities do get a job, they often have trouble staying employed because of transportation challenges. A New Jersey study showed that a quarter of all disabled Americans left a job because of travel difficulties.⁷ Almost half refused a job for those reasons.

Many Americans with disabilities cannot use traditional fixed-route public transportation because of the difficulty in getting from their home or workplace to the transit stop, or the quality of the transit stop. And the problem is expected to grow. As the U.S. population continues to age, the number of Americans age 65 and older is forecast to nearly double between 2016 and 2060,8 and the prevalence of disabilities increases with age.



Many Americans with disabilities cannot use traditional fixed-route public transportation because of the difficulty in getting from their home or workplace to the transit stop, or the quality of the transit stop.



Employment is not the only challenge for people with disabilities. Over two-thirds of participants in a recent study on disabilities and transportation felt that their social life was hindered because of a lack of access to transportation. Almost half had to cancel an appointment because of transportation difficulties.

⁷ Rall, Jaime. "Getting to Work." *National Conference of State Legislatures*. May 2015. http://www.ncsl.org/Portals/1/Documents/transportation/Work_Job_Access_0515.pdf.pdf.

Vespa, Jonathan, David Armstrong and Laura Medina. "Demographic Turning Points for the United States: Population Projections for 2020 to 2060. *United States Census Bureau*. March 2018.

 $https://www.census.gov/content/dam/Census/library/publications/2018/demo/P25_1144.pdf$

⁹ Bascom. "Transportation Related Challenges for Persons with Disabilities Social Participation."

The 2017 Utah State University study also compared the educational, monetary, and quality-of-life characteristics of the disabled population with those of the population as a whole.

Table 1 compares the commute options of people with disabilities and the general population.

TABLE 1: COMMUTE OPTIONS, DISABLED VS. GENERAL POPULATION (PERCENT)			
Mode	Disabled	General population	
Drive alone	33.5	76.4	
Carpool	16.2	9.3	
Fixed-route transit	20.9	5.1	
Paratransit	13.6		
Walking	3.1	2.8	
Taxi	1.0	1.2	
Social/volunteer*	1.0	N/A	
Cycling	0.5	0.6	

Sources: Graydon Bascom, Utah State University, U.S. Census Bureau, American FactFinder Table S0801

The Utah State study data are from 2016; the census data are from 2017. The source for the general population category combines fixed-route and paratransit service. Additionally, for the general population, social/volunteer is included as either taxi or transit. *Social/volunteer includes free services offered by volunteers or nonprofit community groups including shuttle buses and taxi-like vehicles.

The population as a whole is more than twice as likely to drive alone and about half as likely to carpool, according to the study. Transit use is seven times as high for people with disabilities, while other modes have very low usage among both groups.

Table 2 examines how workers with different disabilities commute to their jobs.

TABLE 2: TRANSPORTATION ACCESS BY TYPE OF DISABILITY (PERCENT)								
Type of disability	Personal vehicle	Ride with others	Bus	Walk	Taxi	Bicycle	Paratransit	Social/ Volunteer
All impairments	32.9	14.3	18.6	3.3	1.5		16.3	0.8
Physical	40.1	12.3	14.5	0.4	0.9		15.8	0.9
Vision	8.9	21.1	22.2	10.0	4.4		24.4	1.1
Hearing	69.2	15.4	7.7				7.7	
Intellectual	20.6	11.8	35.3	5.9			11.8	
Psychological	50.0		25.0	12.5				
Emotional	75.0	25.0						

Source: Graydon Bascom, Utah State University.

Types of impairment determine the mode of transportation. As one might expect, people with vision impairments are much less likely to drive, for example, than those with hearing impairments. Bicycling was not a significant mode for any workers with disabilities.

Table 3 compares the education of the population as a whole with the education of disabled commuters. Some employment categories were combined because of the challenges of getting accurate data.

TABLE 3: EDUCATION LEVEL, DISABLED VS GENERAL POPULATION (PERCENT)				
Education	Disabled	General population		
Less than high school	3.3	13.0		
High school	19	27.5		
Some college/2-year college	14.8	29.2		
4-year college	27.6	18.8		
Post graduate	29.5	11.5		

Source: U.S. Census American FactFinder Table S1501

People with disabilities are much more highly educated than the general population. As Table 3 shows, they are more than twice as likely to have a post-graduate degree and 1.5 times as likely to have a four-year college degree as the general population.

Table 4 compares the income of the general population and disabled commuters.

TABLE 4: ANNUAL INCOME, DISABLED VS GENERAL POPULATION (PERCENT)				
Income	Disabled	General population		
Less than \$15,000	26.7	5.7		
\$15,000-\$24,999	14.5	13.8		
\$25,000-\$34,999	13.3	16.3		
\$35,000-\$49,999	8.8	20.0		
\$50,000-\$74,999	11.7	21.4		
\$75,000-\$99,999	7.9	9.7		
\$100,000 or more	10.9	13.2		

Source: U.S. Census American FactFinder Table S1810, S1901

Higher education does not translate to higher incomes. People with disabilities were nearly five times as likely to earn less than \$15,000 than the population as a whole. The general population has a higher income in every grouping of \$25,000 and higher.

Table 5 compares the employment status of the general population and disabled commuters. Some employment categories were combined because of the challenge of getting accurate data.

TABLE 5: EMPLOYMENT STATUS, DISABLED VS GENERAL POPULATION				
Employment status	Disabled	General population		
Unemployed	25.5	3.9		
Part-time employed	14.5	17.7		
Retired	13.8	20.6		
Volunteer	11.7			
Full-time employed	27.4	57.6		
Self-employed	5.7			

Source: U.S. Census American FactFinder Table S1810

People with disabilities were six times as likely to be unemployed as the general population and only about half as likely to be employed full time as the population as a whole. This shows that, despite higher educational attainment, people with disabilities are much less likely to have full-time employment than the general population.



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Transportation is a challenge for many reasons. People with disabilities, many of whom cannot safely drive, are seven times as likely to use transit and twice as likely to ride with others. Arranging and waiting for rides with others takes twice as long as it does with paratransit, decreasing productivity and adding to stress. Buses and traditional paratransit have shorter wait times than riding with others but can take longer, once on board, to reach a destination—64 minutes for buses and 52 minutes for paratransit, compared with 49 minutes for riding with others, according to the Utah State study.¹⁰

Perhaps not surprisingly, only 7%–10% of Americans with disabilities use paratransit.¹¹ Even though it is challenging to use, 8% to 31% of Americans with disabilities use fixed-route transit. Others use carpools or forgo jobs entirely. Clearly, a better approach is needed—especially since the vast majority of people with disabilities would prefer steady employment.¹²

- "Paratransit Compliance Review." *Federal Transit Administration*. April 2018. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-guidance/civil-rights-ada/115131/access-services-final-ada-paratransit-report-2018.pdf,
 - Sandra Rosenbloom. "Transportation Patterns and Problems of Peoples with Disabilities.
- National Employment and Disability Survey. *Kessler Foundation*. 2015. https://kesslerfoundation.org/kfsurvey15.

¹⁰ Ibid.

PARATRANSIT OPTIONS

Under the Americans with Disabilities Act, paratransit must be provided in all geographic areas in which fixed-route transit service is provided. The number of transit providers has grown over the past 10 years. As of 2015, more than 6,700 organizations provided public transit, with several hundred additional organizations providing private transit.¹³

More than 90% of the 50 largest transit agencies contract with private carriers to provide service. When the National Academy of Sciences surveyed agencies, only 14 provided their own service.



Many agencies use contracts known as a brokerage service, in which the broker receives requests, matches the traveler with an appropriate carrier, and schedules the trip.



¹³ "2016 Public Transportation Fact Book." *The American Public Transportation Association apta.com.*

¹⁴ Paratransit Compliance Review." Federal Transit Administration.

Some transit agencies use a single contract to employ a single carrier. Other operators use multiple contracts. Many agencies use contracts known as a brokerage service, in which the broker receives requests, matches the traveler with an appropriate carrier, and schedules the trip.

In some areas, riders do the scheduling themselves and get "user-side" subsidies. They buy vouchers from the transit system, arrange the rides, and pay the ride provider with the vouchers. The carriers then present the vouchers to the transit agency for payment. Taxi companies provide some of this service, but the use of ride-hailing services such as Uber and Lyft is increasingly prevalent for trips of all kinds in low-density suburban, exurban, and rural areas.



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Generally, there are three types of service groups. The first is direct management of service, in which the transit agency has a direct role in some or all of the four primary call center functions—reservations, scheduling, dispatching, and handling customers' estimated time of arrival (ETA) calls—and, in some cases, operations as well.¹⁵ In the second group, the transit agency retains a call and control center manager or an operational broker. In the third group, the dedicated service provider contractor also performs some or all of the call center functions. Within these three groups, there are overlaps. Some transit entities use two or three different service models to provide trips.

Table 6 shows the percentage of agencies using a certain service. Below the table, Figure 1 displays the different management structures for each type of transit service.

Garcia-Colberg, Mariela. "ADA Paratransit Service Delivery Models." TCRP Synthesis J-07. May 2016. http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=4220.

TABLE 6: PARATRANSIT CONTRACT TYPE	
Type of contract	Percentage
Single contract	25
Multiple contract	21
Brokerage	*
User-side subsidy	7
Combination	29
Coordination	21
Direct operation**	14

^{*}Agencies that offer brokerages do so as part of a combination and are counted in that category.

NOTE: Several agencies use multiple paratransit contract types so the percentage sums to more than 100. Source: Garcia-Colberg, Mariela. "ADA Paratransit Service Delivery Models." TCRP Synthesis J-07, May 2016. http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=4220.

FIGURE 1: PARATRANSIT MANAGEMENT STRUCTURES OPERATIONAL CALL (+ CONTROL) CENTER MANAGER ADMINISTRATIVE TURNKEY IN-HOUSE SPLIT STRUCTURE BROKER BROKER CONTRACT TRANSIT AGENCY TRANSIT AGENCY TRANSIT AGENCY TRANSIT AGENCY TRANSIT AGENCY TRANSIT AGENCY RES SCH DISP ETA (OPS) ADMINISTRATIVE BROKER RES SCH DISP ETA CONTRACTORS CONTRACTOR(S) CONTRACTORS CONTRACTOR(S) CONTRACTORS RES SCH DISP ETA RES SCH DISP ETA (OPS) OPS OPS OPS (OPS) RES=Reservations | SCH=Scheduling | DISP=Dispatching | ETA=Handling ETA calls | OPS=Operations

Source: Garcia-Colberg, Mariela. "ADA Paratransit Service Delivery Models." TCRP Synthesis J-07. May 2016. http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=4220.

^{**}These agencies directly operate all of their service.

Just as there are many types of paratransit models, there are many types of vehicles. According to a 2016 national study, 44% of providers use vans only; 20% use vans and minibuses; 20% use vans, minibuses, cars, and taxis; and 16% use vans, cars, and taxis.¹⁶

While transit agencies honor most trip requests, the quality of service varies. In Los Angeles County, agencies denied less than 1% of all trip requests due to capacity constraints in 2017, and on-time performance was 90%–95%. But agencies are able to transport an average of fewer than two passengers per hour, and productivity could be improved with more-efficient scheduling and loading. In other words, agencies may be on time, but they are not efficient.

¹⁶ Ibid.

Paratransit Compliance Review." Federal Transit Administration.

DEVELOPING INNOVATIVE PARATRANSIT

Given the long wait times and/or slow service of traditional paratransit, many agencies have been experimenting with new types of service.



For instance, the Kansas City Area Transportation Authority (KCATA) is launching a program called Freedom on Demand that will enable customers to schedule ride-share-like services by using an app or calling the agency.



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by using an app or calling the agency.¹⁸ The goal is to create a service that is on-demand but still operated by a transit authority. The service will operate in two parts of the Kansas City metro area: one north of the Missouri River and one south. The first five miles of a trip costs \$5, and each mile after that is an additional \$2. The agency's contractor, Transdev, operates the service.

The New York Metropolitan Transportation Authority has launched "enhanced broker service" that allows users to choose taxis and for-hire vehicles. 19 Riders can use the Curb app to book rides online and with less advanced notice than with conventional paratransit trips.

The Massachusetts Bay Transportation Authority chose the boldest alternative. Traditional paratransit service in the Boston area is operated by private contractors and overseen by MBTA under The RIDE name. But the existing Boston paratransit service had many problems.

It was expensive, costing taxpayers more than \$100 million per year.²⁰ Rides were not scheduled efficiently. Many drivers had hours between scheduled rides. More-expensive handicapped vans were being used to transport people who were ambulatory. MBTA had been under pressure for the past 10 years to reform its paratransit program.



MBTA had been under pressure for the past 10 years to reform its paratransit program. As a result, The RIDE started an innovative program—a partnership between MBTA, Uber, and Lyft—to provide higher-quality paratransit service.



[&]quot;KCATA Expands On-Demand Paratransit Program." Metro Magazine. April 5, 2018. http://www.metro-magazine.com/accessibility/news/729241/kcata-expands-ridekc-freedom-on-demand-paratransit-program.

¹⁹ "New York MTA Offers Enhanced Paratransit Program Services." *Metro Magazine*. 19 March 2019. https://www.metro-magazine.com/accessibility/news/733450/new-york-mta-offers-enhanced-paratransit-program-services

²⁰ Chieppo, Charles. "Why Paratransit Doesn't Have to be so Expensive." *Governing Magazine*. September 22, 2016, http://www.governing.com/blogs/bfc/col-cutting-costs-paratransit.html

As a result, The RIDE started an innovative program—a partnership between MBTA, Uber, and Lyft—to provide higher-quality paratransit service.²¹ The program allows riders to book trips with Uber and Lyft directly from their smartphones. Customers in the trial are encouraged to use both traditional and on-demand paratransit services and to provide feedback on the advantages and disadvantages of each.

For now, MBTA is keeping its traditional fixed-route paratransit for three reasons. First, it needs a benchmark with which to compare the Uber and Lyft service. Second, the pilot program is not available in all geographic areas. Third, Uber and Lyft are not allowed to serve the airport and are not currently qualified to transport certain individuals, such as those with oxygen tanks or those who need physical assistance reaching the vehicle.

MBTA is considering running both services permanently at the same time in selected areas. However, there is no reason over the long term, if Uber and Lyft acquire these capabilities, that traditional paratransit could not be eliminated.

Table 7 compares standard paratransit to the MBTA pilot program, demonstrating consumer advantages in many critical areas.

TABLE 7: MBTA PARATRANSIT PILOT PROGRAM				
Service	Standard paratransit	Pilot		
Fare	\$3.15, \$5.25 for premium service	As low as \$2		
Booking timeframe	At least 1 day in advance	On demand, instant request to dispatch		
Day-of wait time	30-minute window	As low as 5 minutes in core service area		
Trip reservations	By phone	Via smartphone app or phone call		

Source: MBTA, 2018.

[&]quot;On Demand Paratransit Pilot Program." *Massachusetts Bay Transportation Authority*. https://www.mbta.com/accessibility/the-ride/on-demand-pilot.

All paratransit customers can apply to participate, assuming they have an updated payment method on file, although not all customers may be selected. Currently, 4% of paratransit customers are active participants in the trial.²² Customers can sign up by going to the Uber or Lyft website and downloading the smartphone app. Service is available in English, Spanish, Portuguese, Mandarin, Russian, Vietnamese, and Haitian Creole.



Requesting a ride is as simple as selecting a pickup point, choosing the service and vehicle type, entering the destination, viewing the fare and driver's estimated time of arrival, and hitting "request."



Customers without a cellphone still can participate: Lyft offers a phone-in service for riders; Uber is providing a limited number of RIDE customers with smartphones. Requesting a ride is as simple as selecting a pickup point, choosing the service and vehicle type, entering the destination, viewing the fare and driver's estimated time of arrival, and hitting "request."

Uber offers single-ride service as well as carpool service, and Lyft offers single-ride service. Uber and Lyft riders pay \$2 plus any fares over \$42. The Uberpool carpool service is \$1 plus fares over \$41.²³

All Uber and Lyft rides are subject to surge pricing, which increases the cost during very busy periods. As a result, prices during rush hour and certain late-night hours are higher. Since most paratransit service operates at midday on weekdays, the pricing does not affect most customers. The pricing is designed to spread trips out evenly to help reduce the overall cost of the trips to riders and taxpayers. Paratransit users can take Uber and Lyft anywhere in the service area except for Boston Logan International Airport.

²² Ibid.

²³ Ibid.

The trial program has been very successful. Customer satisfaction has exceeded MBTA's most optimistic metrics. Under the Net Promoter score, which is designed to measure the popularity of transit services, the pilot received a +85; public transit as a whole received a +12. MBTA overall received a -11.²⁴ (Scores range from -100 to +100, with the higher score indicating greater customer satisfaction.)

The scores demonstrate how dissatisfied customers are with traditional paratransit and how satisfied they are with the pilot program. In fact, one in five pilot customers has stopped using traditional paratransit service. Participants are so happy with the quality of the new service that they are taking 43% more trips with the service, while use of regular paratransit among the trial group has decreased 27%.

Metzer, Andy. "MBTA's Disabled Customers Switch to Uber and Lyft." *The Boston Globe*. February 28, 2018. https://www.bostonglobe.com/metro/2018/02/27/mbta-disabled-customers-switch-uber-lyft/C08S5Cohy0gjorj6rQk1XO/story.html.

COSTS

While the per-trip ride is cheaper than the MBTA's other paratransit service, the savings have been smaller than expected. The subsidy of \$40 per trip is about 1% cheaper than the regular paratransit service. The transit agency had hoped for a cost savings of 10%–20% over traditional paratransit. While the 1% savings equals \$2,800 a month, such an amount equates to a rounding error for an agency the size of MBTA.²⁵



While the 1% savings equals \$2,800 a month, such an amount equates to a rounding error for an agency the size of MBTA.



However, MBTA is enacting changes to try to make the service more affordable. For instance, the agency is considering limiting the types of trips that can be taken via solo Uber and Lyft vehicles. There is evidence that customers are not sharing trips even when sharing would not significantly increase travel times.

²⁵ Ibid.

MBTA can code certain types of trips, such as those to the grocery store or shopping mall, as shared and ensure that those trips are taken as carpools. Both companies have carpool service (Uberpool and Lyftline). In cases where travelers are going from the same general origin to the same general destination at around the same time, carpool service can be used in all instances except emergencies.



MBTA is also trying to dissuade customers from using only ondemand paratransit. Currently, many consumers are choosing the pilot service with Uber/Lyft for all of their trips.



MBTA is also trying to dissuade customers from using only on-demand paratransit. Currently, many consumers are choosing the pilot service with Uber/Lyft for all of their trips. Riders make this choice because the pilot service is better quality and customers pay the same overall price.

MBTA might consider explaining to riders which types of trips are most effectively served by traditional paratransit and which types are better served by the pilot service. Since the terms of the pilot program require customers to use both services, MBTA should consider terminating pilot riders who do not abide by the contract terms after repeated warnings.

At least for the short term, traditional paratransit service still does have a role. The pilot program does not provide service to all areas. Uber and Lyft do not serve all areas. Not all vehicles are equipped for wheelchairs, forcing some customers who want to use the pilot service to use traditional paratransit.²⁶ (It should be noted that more than 80% of paratransit customers do not use wheelchairs. The problem is not a lack of wheelchair-accessible vehicles but a failure to dispatch the appropriate vehicle for the trip.) Until these issues are resolved, it can be more logical and economical for some paratransit customers to use the traditional provider.

There are several other ways to reduce paratransit costs. The most popular is to encourage more elderly and disabled customers to use fixed-route transit. Recall that many customers are not physically disabled. Instead, they don't use traditional transit because it is not convenient or has other operational problems.

CREATING A RIDE-HAILING PARTNERSHIP

Regions across the country have a golden opportunity to take the Massachusetts experiment, improve it, and make it a permanent approach to paratransit. But enacting it will take the cooperation of federal, state, and local leaders.

The paratransit program would operate much like the Boston-area pilot project. However, the program would be permanent, and Uber and Lyft would provide all paratransit service in the metro areas. The average subsidy per paratransit trip is about \$26.²⁷ In major cities such as New York the subsidy can be as high as \$60.²⁸ Ridesharing services could reduce the subsidy significantly.

²⁷ Schmidt, Angie. "How Transit Agencies Can Offer Better Paratransit Service at Lower Costs." Streetsblog. September 20 2016. https://usa.streetsblog.org/2016/09/20/how-transit-agencies-can-offer-better-paratransit-service-at-lower-costs/

James, Robert. "Cost-Cutting Strategies for Your Paratransit Program." October 7 2019. https://www.metro-magazine.com/mobility/article/729377/cost-cutting-strategies-for-your-paratransit-program



In cities where Uber and/or Lyft do not currently operate, local ride-hailing companies may be an alternative. Certain regions, such as Austin, Texas, have a slew of mom-and-pop ride-hailing operations.



In cities where Uber and/or Lyft do not currently operate, local ride-hailing companies may be an alternative. Certain regions, such as Austin, Texas, have a slew of mom-and-pop ride-hailing operations. Business shuttles may be able to operate much of the transit service. In other regions, local transit agencies would need to continue to operate transit service until ride-hailing services become more prevalent.

Since the program is designed for the elderly and disabled, verification of income and age of participants would be required. Verification could be conducted when participants sign up for the program. Preventing service abuse allows high-quality service to individuals who qualify for ADA services only and limits overall program costs.

At the same time, transit entities should not adopt the same agreement with Uber and Lyft as Boston's MBTA, but rather seek to improve on it. There are several programmatic changes that transit agencies should adopt.

WHAT TRANSIT AGENCIES CAN DO TO IMPROVE PRIVATE PARATRANSIT SERVICES

Encourage Carpooling: First, the agencies need to encourage carpooling in paratransit service in all non-emergency situations. With MBTA's The RIDE pilot, 75% of passengers travel alone.²⁹ Software can be set up so that travelers with destinations, origins, and scheduled trips less than two miles and 30 minutes from each other are scheduled

²⁹ Metzer. "MBTA's Disabled Customers Switch to Uber and Lyft."

together. Passengers wanting to travel alone would need to reject the ride-hailing request and provide a documentable reason.

Refine Priorities: Second, the agencies should categorize the groups and provide different priorities for more time-sensitive trips. Good scheduling is critical to saving money. The MBTA pilot program proved that riders will choose ride-hailing companies all the time. Those choices can be accommodated if different trips are prioritized differently. A doctor's appointment is more time-sensitive than a trip to the mall, so the trips should be coded differently. Lyft and Uber might extend their differential pricing beyond certain times of the day to certain types of trips. Trips to the mall could have a longer overall pickup window (time when service may arrive); customers wanting a shorter pickup window could pay extra.

Tier the Costs: Third, agencies should charge more for high-quality service. The federal government requires that all paratransit service be no more than twice as expensive as fixed-route transit.³⁰ This one-type-fits-all approach may benefit very low-income individuals but it also reduces service quality and innovation. But until federal policy changes, local agencies must follow the law.

Agencies still could charge the maximum for certain trips to encourage riders to use the service more efficiently. Regions could charge up to \$5 per one-way trip. Paratransit is expensive, and increasing the charges would help decrease the taxpayer subsidy.

WHAT PROVIDERS AND POLICYMAKERS CAN DO TO IMPROVE PRIVATE PARATRANSIT SERVICES

6.2

Provide Special Vehicles: Permanently changing transit services can present legal hurdles not encountered in the Boston pilot program, which has more latitude. Federal law typically requires that Uber and Lyft serve all types of customers, which is not how the service is set up in the Boston area. To be the sole provider of paratransit service, additional Uber and Lyft vehicles would need to be properly outfitted with wheelchair lifts, wider doors, and supplemental restraint systems.

³⁰ "An Overview of the Americans with Disabilities Act." Americans with Disabilities Act National Training.

Not having the correct vehicles could lead to a lawsuit and a federal order to change paratransit providers. Some users of the Boston pilot program encountered this problem when a regular vehicle arrived to pick up a physically disabled customer. When that occurred, the ride had to be rescheduled, inconveniencing the rider and increasing costs to taxpayers.

Currently, Uber and Lyft are not qualified to transport certain customers, including those dependent on oxygen tanks and those needing physical assistance to reach vehicles. To become the sole provider, the two ride-hailing services would need to become qualified to transport passengers with flammable liquids and to escort passengers from the dwelling to the vehicle. This requires driver training.

Work to Create Appropriate Insurance Offerings: Transit providers may also need a different level of insurance coverage. To receive federal funding, drivers are expected to need commercial-level insurance. Uber and Lyft could consider working with insurers to provide a medium level of coverage. States could encourage insurance agencies to provide new, lower-cost products covering the driver and one or two riders. The coverage would cost more than if the ride-hailing companies were operating in taxi mode but less than a buslike paratransit vehicle capable of transporting eight or more people. Additionally, some types of vehicles may not be eligible. Uber and Lyft already limit how old vehicles can be, depending on the area. But smaller vehicles, including subcompacts, may not receive federal approval for paratransit because of limited space availability.

Allow Non-Unionized Provision of Federally Funded Transit Services: Fixed-route transit service providers that receive federal funds also must allow unions. While these private-sector unions are similar to existing public-sector unions in worker protection and pay, public-sector unions may view this as a loss of turf and fight the private-sector unions. Labor may view Uber and Lyft as a first step toward eliminating human jobs (through automated vehicles, for example) and fight any changes.

Some Uber and Lyft drivers have tried to unionize in cities such as Seattle. Thus far, prounion forces have failed, but the appeals process may go to the U.S. Supreme Court. Unions tend to significantly increase costs. Transit that does not receive federal funding would not

[&]quot;Uber and Lyft Car and Driver Requirements." *HyreCar*. December 14, 2017. https://hyrecar.com/blog/uber-lyft-car-and-driver-requirements/.

be required to allow unions. Federal lawmakers should allow non-union entities to provide transit to passengers in programs receiving federal funding.

Seek Cooperation with Private Transit Providers: Finally, using ride-hailing services to provide paratransit service requires political leadership. The transit agency does not need formal authority from the Federal Transit Administration, the governor, or a local mayor, although having that support would help. The transit authority CEO will need to want to reform service and be ready for opposition from public unions and transit riders to make the change. The CEO will have to seek board consensus for the change.

To help build support, the CEO also could reach out to the transit riders advisory board that most agencies have. The federal government can help by issuing an executive order or by including a provision in a future surface transportation bill increasing funding and/or decreasing regulations for paratransit service that demonstrates increased rider satisfaction and decreased costs.

CONCLUSION AND RECOMMENDATIONS

Transit officials have an excellent opportunity to reform and improve their transit systems by creating partnerships with ride-hailing companies. Agencies are encouraged not to duplicate the Massachusetts Bay Transportation Authority's program in total, but to learn from the mistakes and customize a program for each region's geographic area. Specifically, and in sum:

- MBTA's pilot program should serve as a model for transit agencies throughout the country.
- The paratransit program should consider operating in a similar manner to the Boston-area pilot. In these metro areas, the program would be permanent, and Uber and Lyft would provide all paratransit service in the metro areas. Paratransit would complement ongoing fixed-route transit.
- Federal lawmakers should allow non-union entities to provide transit.
- There are several programmatic changes that transit agencies should consider adopting as part of a new paratransit on-demand model:
 - Encourage carpooling for non-emergency trips;
 - o Refine priorities for more time-sensitive trips; and
 - Tier the costs.

- There are several programmatic changes that private providers and policy makers should consider adopting as part of a new paratransit on-demand model:
 - o Provide vehicles for riders with physical disabilities;
 - Work to create new insurance offerings;
 - o Allow non-unionized provision of transit service; and
 - o Seek cooperation with private transit providers.

Making these changes will not be easy. However, the alternative of the status quo of mediocre service at increasingly unaffordable costs is not a realistic option. Transit agencies should consider this new way forward.

ABOUT THE AUTHOR

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