



# Mobility Lessons Learned:

A SUMMARY OF THE MOD PILOTS IN THE LOS ANGELES AND PUGET SOUND REGIONS



# **Mobility Lessons Learned: A Summary of the MOD Pilots in the Los Angeles and Puget Sound Regions**

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## About the Eno Center for Transportation

The Eno Center for Transportation is an independent, nonpartisan think tank whose vision is for an American transportation system that fosters economic vitality, advances social equity, and improves the quality of life for all. The mission of Eno is to shape public debate on critical multimodal transportation issues and build a network of innovative transportation professionals. As an organization, Eno values independence, collaboration, relevance, excellence, and entrepreneurialism. These core values are reflected in everything we do.

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## About the Federal Mobility on Demand Program

Mobility on demand (MOD) refers to transportation services that can be hailed in real-time for an impending trip. MOD integrates data such as location tracking and traffic conditions, with user-entered destination and payment information. Though most MOD services are designed for users to interface using a smartphone, MOD can be requested through a web browser or call center, which can increase accessibility and equity of the service for people without access to a smartphone, people with vision impairments, people who require non-English communication, and others. While MOD is not a new concept, recent technological advancements facilitate its deployment in a new way. Its role in the future of transit systems is yet to be determined.

In May 2016, the Federal Transit Administration (FTA) announced \$8 million in funding for its Mobility on Demand Sandbox Demonstration Program. The program is part of FTA's support of transit agencies, government entities, educational institutions, and communities as they experiment with on-demand mobility tools such as smart phone applications and shared mobility services to augment and enhance existing transit agency services. MOD Sandbox was developed to test new ways to encourage multimodal, integrated, automated, accessible, and connected transportation. Among the key features of the program is its focus on local partnerships and demonstrated solutions in real-world settings.

Some of the eligible activities applicants could propose to advance MOD and transit integration were new business models for planning and development, the acquisition of new equipment, services, software and hardware, and operation of the project in a real-world setting. Eligible partners included public transportation providers, state and local departments of transportation, federally recognized Indian tribes, private for- and not-for-profit organizations, transportation service operators, state or local government entities, consultants, research institutions and consortia, and not-for-profit industry organizations. In October 2016, 11 projects were selected for funding (see the Appendix.)

The largest project awarded was a two-region partnership between Los Angeles and the Puget Sound Region. The Los Angeles County Metropolitan Transportation Authority (LA Metro) collaborated with King County, Washington Metro Transit (King County Metro) and the Central Puget Sound Regional Transit Authority (Sound Transit) on a project to contract with a transportation network company (TNC) to provide first/last mile service to select transit stations near disadvantaged communities. This proposal included evaluation and reporting by the Eno Center for Transportation and local research universities. The FTA awarded the team a grant of \$1.35 million for the pilot and corresponding research.

The stated overall goal of the Los Angeles/Puget Sound project is to: 1) define how TNC services can be aligned with existing transit service to serve an effective first-mile/last-mile solution; 2) define how key partners can cost-effectively ensure equal access for individuals with disabilities and low incomes; 3) demonstrate payment integration across transit operator and TNC platforms, specifically to enable service to lower income and unbanked populations.

## 1. Introduction

In October 2019, Eno launched a report series focused on evaluating key research questions and considerations for the pilots. These included understanding how to develop models for service contracting between private TNCs and public transit agencies, developing data sharing agreements between agencies and private MOD providers, the integration of fare payment systems for MOD projects, and how MOD projects affect access for people with physical disabilities. See the appendix for descriptions.

This paper summarizes the final analysis conducted by research teams in each region. It is framed around the fundamental questions of the pilot: how did the MOD services work, whom did they serve, and where did this service primarily take place? The full analyses of both regions are highly detailed and contain specific information to each region, such as neighborhood and station area statistics. Both are available on Eno's website in their entirety.<sup>1</sup>

## 2. Summary of Findings

While the pilots in both the Los Angeles and Puget Sound regions were similar in their motivations, design and execution, it is important to recognize key differences between them. These differences make direct comparisons between each pilot challenging and each difference should be examined carefully.

For example, the Puget Sound pilot operated late at night and on weekends at all but one station, while the Los Angeles project did not. The Los Angeles project initially tested TNC service in three different station areas with different transit types (i.e., light rail, heavy rail, and bus rapid transit) while Puget Sound focused on five light rail station areas. Both pilots had slightly different timelines and also changed elements such as service areas and fares over time. And, of course, the regions themselves are different in their demographics, economies, and transit agencies.

The Los Angeles and Puget Sound pilots were contracted and operated independently. This report includes data from the first year of operation of both services. The Los Angeles analysis includes data from January 28, 2019 to February 28, 2020. The Puget Sound analysis includes data from April 16, 2019 through March 23, 2020. However, the Puget Sound analyses largely use data through the end of February 2020 because the COVID pandemic significantly affected system use and performance in March, and this report is not about the effects of COVID.

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<sup>1</sup> Anne Brown (U. of Oregon), Michael Manville (UCLA), and Alexandra Weber (UCLA), "Los Angeles Mobility on Demand Sandbox Program," and Mark Hallenbeck, Alex Van Roijen, Ryan Avery, and Dmitri Zyuzin (TRAC), "Evaluation of the Use and Performance of Via to Transit in the Puget Sound Region."

Nevertheless, several key conclusions can be drawn from the pilots. For one, both were successfully implemented. The transit agencies in both regions were able to demonstrate that it is possible for them to work with a TNC—in this case, Via—to conduct the experiments. The contract negotiations were challenging, as were other agreements between the public and private parties such as data sharing considerations, but both were completed.<sup>2</sup>

The technology to summon and dynamically route vehicles functioned, and the Via service was able to carry passengers from their location to rail or bus stations and back again. About three-quarters of the trips requested were completed, for various reasons including riders cancelling booked rides and riders not accepting rides proposed to them. The pilots made special provisions to accommodate passengers who relied on mobility devices like wheelchairs, those who do not have access to a smartphone, the unbanked, those with limited English proficiency, and others. The Eno papers listed in the Appendix describe these operational characteristics in much more detail.

## 2.1 How did the pilots work?

The Puget Sound evaluation noted the "substantial" level of participation in its MOD pilot: about 5 percent of the light rail users in the pilot study area. Nearly 300,000 trips were requested during the 10 months the project operated and about 74 percent of those trips were successfully made. (Most non-completed ride requests occurred because riders cancelled booked rides or did not accept rides proposed to them.) Los Angeles evaluators noted fewer trips – only about 102,000 trips were requested but a higher percentage—79 percent—of those requests were completed. The difference in ridership is in part due to the greater service hours and more locations offered within the Puget Sound pilot.

Both pilots measured driver utilization in terms of riders per driver per hour. The Puget Sound pilot averaged 3.94 riders per driver per hour and the Los Angeles Pilot averaged 2.61 over the course of the year-long pilot. Utilization rose in the early weeks of the pilots and improved gradually before falling as COVID-19 restrictions came into place in March 2020. For the month of February 2020, the Puget Sound and Los Angeles pilots were averaging 4.37 and 2.47 rides per hour, respectively, with peak times averaging over 7.48 and 3.45 rides per hour, respectively.<sup>3</sup> Note that the stations selected for the pilot locations were not intended to maximize ridership, and the pilots did have different operating parameters. For example, the Puget Sound pilot operated throughout the day and

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<sup>2</sup> See: Alice Grossman and Paul Lewis, "Contracting for Mobility," Eno Center for Transportation, October 2019; Alice Grossman and Paul Lewis, "Data on Demand," Eno Center for Transportation, February 2020.

<sup>3</sup> Peak hours are measured on weekdays from 6:00am-9:00am, and 3:00pm-6:00pm.

on weekends, where the LA service was only offered during weekdays and not at night. Service hours impact usage and therefore load factors.

From a financial perspective, the public agencies involved in the Puget Sound pilot spent on average \$11.90 per ride (this is the total pilot cost to the agency divided by the total number of rides, not counting any fare revenue) and Los Angeles Metro spent \$23.09 per ride, including start-up costs. This is on average more than the per ride cost on each region's (pre-COVID-19) bus network (\$6.14 per boarding on King County Metro bus and \$4.19 on LA Metro bus), but significantly less than per ride cost on each region's paratransit service (\$55.75 per boarding on King County Metro paratransit and \$39.00 on LA Metro Paratransit).<sup>4</sup>

Understanding financial performance is important, but it is necessary to caveat the above figures since they are not completely comparable. The costs per ride on the bus networks do not include capital expenses, such as purchase of buses. The MOD ridership includes the first several months when ridership was lower but increasing. Also, the MOD service zones were not selected based on their potential to maximize ridership. Finally, financial performance is tougher to measure and compare, in part because it is a pilot and it is unclear whether the private partner priced the service at a market rate. Future service agreements could have very different financial outcomes.

In summary, the MOD service could be an effective way to serve paratransit trips or low ridership bus services, but it does not appear to be less expensive than an average ridership bus route.

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<sup>4</sup> These figures provided directly by Los Angeles Metro and King County Metro.



**Table 1: Via MOD Ride Requests and Request Outcomes**

	Puget Sound Pilot (5 station areas) April 16, 2019 – February 29, 2020				Los Angeles Pilot (3 station areas) January 29, 2019 – February 26, 2020			
Request Outcome	# of Non-WAV Trip Requests	% of Total Non-WAV Trip Requests	# of WAV Requests	% of WAV Trip Requests Completed	# of Non-WAV Trip Requests	% of Total Non-WAV Trip Requests	# of WAV Requests	% of WAV Trip Requests Completed
Completed	219,805	74.0%	684	66.7%	80,202	78.8%	746	76.0%
Admin cancelled	429	0.1%	38	3.7%	164	0.2%	10	1.0%
Rider cancelled	21,231	7.2%	43	4.2%	5,026	4.9%	69	7.0%
Rider no show	3,069	1.0%	26	2.5%	707	0.7%	4	0.4%
Seat unavailable	4,641	1.6%	88	8.6%	1,758	1.7%	57	5.8%
Rider did not accept trip	41,204	13.9%	110	10.7%	12,484	12.3%	73	7.4%
Invalid request	6,145	2.1%	29	2.8%	1,069	1.1%	17	1.7%
Other	392	0.1%	7	0.7%	347	0.3%	6	0.6%
Grand Total	296,916	100.0%	1,025	100.0%	101,757	100.0%	982	100.0%

*Source: Pilot Data.*

*# of Non-WAV Trip Requests – trips that riders requested not needing wheelchair accessibility*

*% of Total Non-WAV Trip Requests – percent of total trips riders requested not needing wheelchair accessibility*

*# of WAV Requests – trips that riders requested needing wheelchair accessibility*

*% of WAV Trip Requests Completed – percent of total trips riders requested needing wheelchair accessibility*

*Completed – Trips requested that the rider took to their intended destination*

*Admin cancelled – trips that were cancelled by Via for administrative reasons*

*Invalid Request – trip was requested outside of zone, operating hours, etc.*

*Rider no show – Rider requested a trip but did not show up at designated pick-up location*

*Rider cancelled – Rider accepted trip, then cancelled*

*Seat unavailable – The pilot was unable to complete trip due to unavailable seats*

*Rider did not accept trip – The rider requested and was offered a trip but never accepted it*

Part of the reason for the different ridership levels between the regions is that the Puget Sound pilot operated largely during the same times the light rail stations were open and on weekends. They saw generally typical rush hour patterns of MOD use during weekdays but also notable use late at night and on weekends. Los Angeles saw fairly evenly distributed trip requests throughout the traditional workday, when the service was offered.

Riders had to wait about the same amount of time in both places for their drivers: 8.7 minutes in Puget Sound and 9.0 in Los Angeles. In Los Angeles, 85 percent of drivers arrived within 15 minutes of being requested. In the Puget Sound pilot, just under 89 percent of drivers arrived within 15 minutes.

A key element of the pilot was to determine the effect of Via MOD service on transit ridership. Puget Sound evaluators found that the Via service had a "positive effect" on increasing its light rail ridership, but they are careful to note the data does not show that improved access to the light rail stations through the Via service definitively increased ridership, given myriad other factors such as seasonal changes and ongoing construction.<sup>5</sup> The pilots also aimed to understand whether the Via MOD rides would simply replace rides that would normally be taken by transit to and from the stations. Table 2 shows that a plurality of Via users in both places took the bus or walked to/from the station prior to the pilot.

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<sup>5</sup> When the system showed overall declines in ridership due to seasonal or other exogenous factors, the MOD-served stations either maintained ridership or showed ridership decreases that were lower in percentage terms than the majority of other stations in the system. When system ridership increased, they typically were among the stations with the highest increases ridership. For more detail, see the full Puget Sound analysis.

**Table 2: Previous Travel Mode To/From Station**

	Puget Sound Pilot		Los Angeles Pilot	
	Previous mode TO station	Previous mode FROM station	Previous mode TO station	Previous mode FROM station
Drive	14.9%	16.5%	18.9%	13.5%
Dropped off/picked up	9.9%	10.6%	4.8%	7.3%
Lyft/Uber	7.6%	5.9%	14.4%	19.7%
Bus	23.8%	24.6%	33.6%	32.6%
Bike	1.3%	0.8%	3.1%	2.6%
Walk/wheelchair	26.1%	21.2%	10.2%	12.4%
Other	5.5%	8.1%	7.0%	6.7%
Did not use station	10.8%	12.3%	7.9%	5.2%
Total	100.0%	100.0%	100.0%	100.0%

*Source: Via app-based Survey*

## 2.2 Whom did the pilots serve?

To understand who used the MOD service, evaluators in both regions conducted an in-person survey of transit riders at the target stations (known as an "intercept survey") in advance of the MOD pilot. Once the pilot was underway, another app-based survey was administered to pilot users. Other data that supplemented the analysis included Via trip data and transit agency farecard data when available.

While both surveys are perfectly acceptable for scholarly research purposes, they should be treated with caution given their relatively small sample sizes and opt-in nature. For example, Puget Sound evaluators compared Via rider survey data to electronic fare payment data and found Youth riders were under-represented and Seniors were over-represented. In addition, while the Puget Sound project evaluators noted that frequent users of the Via service were over-represented in the survey, no "heavy users" responded to the survey in Los Angeles. Los Angeles evaluators also found certain station users over- and under-represented in the Via survey compared to the transit rider intercept survey.

In both regions, a key element of the pilot was to determine if MOD-style service increased transit accessibility for riders in low-income neighborhoods, people of color, or people with disabilities. Overall, the rider surveys combined with other data reveal that compared to typical transit users, Via MOD users were younger and more affluent (see Table 3). Both evaluators found that while the Via service was successfully deployed and used by a range of users, in neither case did it provide enhanced transit options to disadvantaged riders:

*Los Angeles: [Via riders] are not more likely to come from disadvantaged neighborhoods [and] do not seem to fit the characteristics we would expect if the MOD was reaching a structurally disadvantaged population.*

*Puget Sound: [The Via] service was used less frequently by individuals of color than by individuals who self-identified as white [and] did not succeed in increasing the use of transit by people of color or the low-income population.*

The pilots also aimed to understand whether MOD service would increase access for passengers with disabilities who might not otherwise be accommodated by a standard TNC vehicle, specifically people in wheelchairs. In this way, the Via service provided wheelchair accessible vehicles (WAVs) to meet this potential demand. Unfortunately, both pilots found a disproportionately small share of WAV users took advantage of the service, relative to the population. In Los Angeles, less than one percent (0.94 percent) of total requests were for WAVs. The figure was even smaller in Puget Sound (0.32 percent.)

**Table 3: Demographic Characteristics for Intercepted Transit vs Via MOD Pilot Riders**

	Puget Sound Pilot		Los Angeles Pilot	
	Pre-pilot transit rider survey	Via Rider survey	Pre-pilot transit rider survey	Via Rider survey
Female	48%	55%	46%	44%
Male	49%	41%	53%	54%
Non-binary	2%	4%	1%	2%
Asian/Pacific Islander	22%	20%	9%	21%
Black	15%	8%	15%	6%
Latino	6%	4%	39%	26%
White	47%	58%	18%	28%
Native American	1%	0%	1%	1%
Other	10%	9%	18%	18%

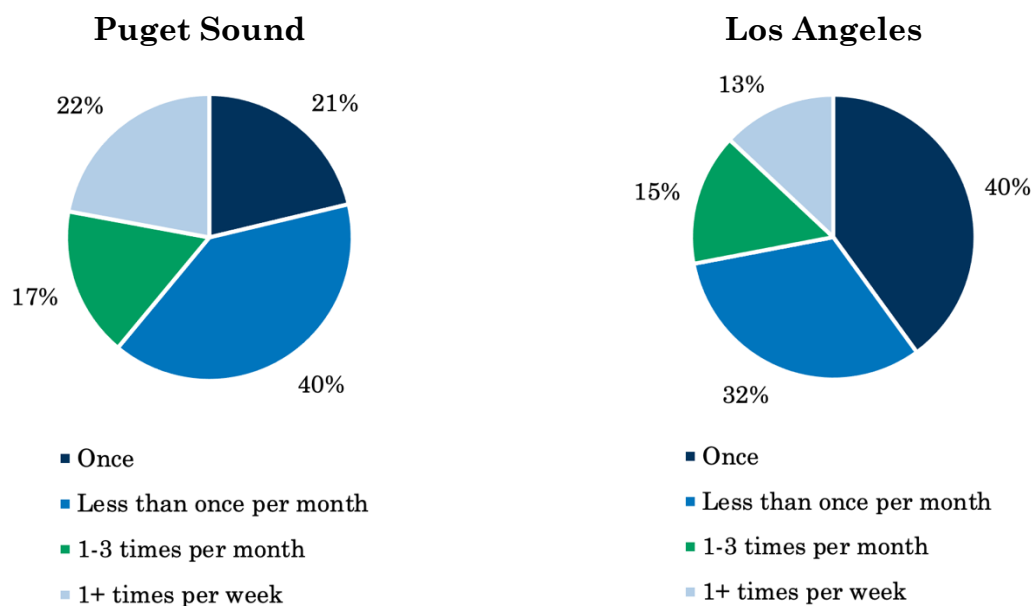
*Note: the researchers conducted an in-person, pre-pilot intercept of all transit riders at the associated transit stations. The Via rider survey was administered through the app as an online survey of Via riders. More detailed data are found in the research teams' final reports.*

In addition, almost all MOD ride requests in both regions came from users with smartphones. For the Los Angeles and Puget Sound pilots, 99 percent and 98 percent of trips were requested through the mobile application, respectively, with

the remaining through the staffed call center concierge service. One of the stated goals in each region was to determine if the MOD service could broaden TNC access to include people without smartphones, which it did not do in either case. As the Los Angeles evaluators noted, while the population of LA Metro riders without smartphones is "substantial," they either were not reached by the pilot program or were reached and did not find it appealing.<sup>6</sup>

Both the Puget Sound and Los Angeles pilots had "super users" who patronized the service very frequently. About 5 percent of the riders in Puget Sound took more than 150 trips, mostly low-income youth riders. In Los Angeles, the evaluators noted that a small share of total riders (10 percent) accounted for a large share of overall trips (66 percent). This indicates that, for some users, the pilot clearly provided a valuable service. However, as the charts illustrate 40 percent of the riders in Los Angeles who used the service did so only once, as did 21 percent in Puget Sound.

**Figure 2: Share of Requesters by Trip Request Frequency**



### 2.3 Where were riders located and where were they going?

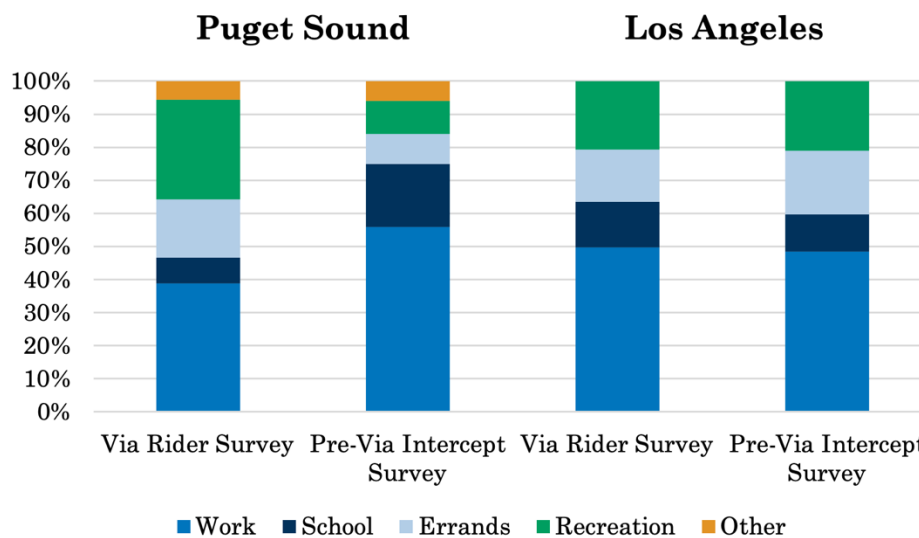
The evaluations from both pilots have detailed descriptions and maps of the geographic distribution of rides generated from the Via app. They show trips by U.S. Census tracts and block groups as well as other variables such as wait time. Overall, it appears that trips were more common closer to pilot stations. The Puget

<sup>6</sup> The Los Angeles pilot did not include a robust multilingual outreach campaign, which might have affected certain populations from understanding the service and how to use it. The analysis did not thoroughly investigate the outreach component. For more information, see additional resources listed in Appendix A.

Sound pilot shows more Via trips in a few areas without good access to the light rail stations by bus, and in other areas with good bus service but on hilly terrain.

Riders used Via MOD services for a variety of trip purposes, with the plurality (40-50%) reporting hailing a ride to and from work. In Los Angeles, the trip purposes for all stations users was very similar to the purposes for the Via users. Puget Sound, however, shows a divergence of trip purposes, with larger shares of non-work trips being delivered by the Via MOD. It is important to understand that it is unclear if the difference results from true differences or from survey sampling as the general rider survey largely occurred during work hours, and the online Via MOD survey could be taken anytime, after any trip.

**Figure 3: Trip Purpose, All Station Users and Via MOD Riders**



Finally, both pilots sought to understand if the MOD service was reaching potential riders who may be without access to a car, or otherwise have difficulty travelling. In neither case were the findings significant. The Puget Sound evaluators' model shows that income was somewhat of a factor as fewer MOD Via trips were taken to and from census block groups with lower median incomes than to block groups with higher median incomes. Evaluators in Los Angeles found that the spatial patterns revealed very little—positive or negative—about the Via pilot's service in low-income neighborhoods.

### 3. Recommendations

The comprehensive evaluations of the Los Angeles and Puget Sound pilots as well as the papers in Eno's research report series (see Appendix) show mixed results.

For one, they illustrate that such a service is certainly deployable. Despite initial hurdles with respect to contracting, data sharing, fare integration and others both services were successfully launched and carried riders to and from their destinations. The technology worked and the vast majority of trips requested were completed and were rated highly by the riders. Some riders apparently found the service very valuable and used the service extensively. There is no evidence that riders were dissatisfied with the Via MOD service other than a sizable portion of the riders only took the service once (see Figure 2).

What is less clear is the impact on vulnerable populations or neighborhoods, or on those who may otherwise find it difficult to travel without the service. Very few riders requested wheelchair accessible vehicles and almost all those who did make requests did so by smartphone, indicating that certain persons with disabilities or those without smartphones found few reasons to use the service or were unaware of it. The evaluations also found Via MOD riders are not more likely to come from disadvantaged neighborhoods than the broader population of transit riders.

Nevertheless, as transit agencies struggle in the wave of massive global health, economic, and fiscal challenges more research and analysis are needed to understand potential solutions to a range of looming challenges. The following are recommendations for transit agencies interested in deploying MOD-like service.

**Consider MOD as a tool in the transit service toolbox.** The pilots demonstrated that an on-demand first-mile-last-mile service connecting service areas to high-capacity transit can function. The agencies were able to contract with a technology provider, receive performance data, and require public agency goals be incorporated into the service agreements. The service pilots in both regions did attract new riders facilitated mobility within the zones and was generally well-liked by riders.

**Recognize the limitations of MOD service.** MOD has compelling aspects, but it is hardly a solution that is the best in all scenarios. Both regions experienced increases in trip requests over the first few months, and ridership leveled off over the last 6 months of the pilot. Even as a free (with transfer), on-demand service, it served only a small portion of station access, did not average more than four riders per driver per hour in either region, generally cost more per trip than average traditional bus service. While the service did provide a new option, riders with lower incomes and those with disabilities did not take the service in greater proportions than the existing transit services. Changes in the pilot parameters and continued community engagement might make some improvements in these areas, but the pilots did make concerted efforts to maximize the potential of the service.

**Follow best practices in contracting, data sharing, fare integration, and accessibility.** If it is the right tool for the need, creating a MOD partnership is often a new endeavor for transit agencies. Luckily the experience of agencies like LA

Metro, Sound Transit, and King County Metro have developed compelling lessons on how to set up a contract, how to arrange for data sharing, and other factors (see appendix). Agencies should follow the recommendations established by previous evaluations to ensure a smooth and effective pilot.

**Be transparent with MOD service outcomes.** As agencies are increasingly interested in using MOD partnerships to increase access, transparency about how pilots and regular service perform and how that compares to traditional services in terms of access, utilization, and costs, will be helpful in the decision-making processes. Other agencies should set performance goals and targets similar to these pilots and transparently report them.

**Coordinate with others to learn best practices and manage expectations.** The MOD pilots in LA and Puget Sound offer valuable insights and practical lessons that can be applied to other agencies attempting to partner with a MOD provider for a particular transit service. Beyond following written best practices, agencies interested in conducting their own, similar service should reach out to public agency staff in those regions and others that have conducted MOD pilots.

## 4. Conclusions

Even before the COVID-19 pandemic, public transit in the United States was going through a very dynamic period. The FTA's MOD Sandbox Demonstration Program came along at the right time in order to help transit agencies, cities, private sector providers, and others understand whether public transit agencies could successfully partner with TNCs to deliver first-mile/last-mile service, and whether that service could provide better solutions to accessibility challenges for low income households and persons with disabilities.

Both pilots continued during COVID, with some significant changes to service to account for the healthcare emergency. The Los Angeles pilot has allowed point-to-point service, added essential destinations outside of the zones, included food delivery from food banks, and eliminated shared rides. Similarly, the Puget Sound pilot has eliminated shared rides, reduced their service areas and stations served, but have added new features to increase access for people with disabilities and low-income households.

The Eno Center for Transportation along with the University of Los Angeles and the University of Oregon are continuing to investigate the outcomes of the second year of the Los Angeles pilot, with further research and new recommendations forthcoming.



## Appendix

*Descriptions of the papers in Eno's research report series examining the Case Study in the Los Angeles and Puget Sound Regions.*

### Contracting for Mobility

Alice Grossman and Paul Lewis

October 2019

<https://www.enotrans.org/eno-resources/contracting-for-mobility/>

The MOD Sandbox project in the Los Angeles and Puget Sound regions provides a valuable case study for contracting as the project includes public, private, and research organizations as well as two distinct local contexts under the same national program. This paper covers the process that developed the contracts for the MOD Sandbox pilot projects in the Los Angeles and Puget Sound regions. It discusses the nuances of interactions between private companies and public agencies, including non-disclosure agreements, data sharing, and the challenges and opportunities faced between the transit agencies and the MOD provider as well as between the other entities involved in the service provision and evaluation of the project. It compares and contrasts how contracts developed between transit agencies, private sector providers, and researchers. It concludes with recommendations for how the contracting process can be improved to ensure better project outcomes.

### Data on Demand

Alice Grossman and Paul Lewis

February 2020

<https://www.enotrans.org/eno-resources/data-on-demand-a-case-study-in-the-los-angeles-and-puget-sound-regions/>

This report examines the data needs that agency staff need to consider when developing a MOD agreement with private providers. Background information on elements of data sharing in this context includes general state of the practice, and challenges and opportunities for transit agencies. The FTA Mobility on Demand Sandbox project in the Los Angeles and Puget Sound regions serves as a case study with robust data sharing between multiple parties. Both general information and the case study help provide examples of various levels of success in developing and implementing these types of collaborations. The purpose is to inform transit agencies, private MOD providers, and researchers of elements to consider when developing data sharing agreements.

## MOD Fare Integration for Transit

Alice Grossman and Romic Aevaz

September 2020

<https://www.enotrans.org/en-resources/modfareintegration/>

The integration of fare payment systems on public transit is important for efficiency, reliability, customer satisfaction, multimodal trip planning, tracking ridership, and collecting revenue. Studies of fare integration in the United States, western Europe, Australia, and Israel found that simplifying fare payment across multiple agencies and introducing new modes of payment resulted in notable increases in transit ridership. This report discusses individual and collaborative efforts of public transit agencies and private companies to collect and integrate payment methods and information. The case study of the Mobility on Demand (MOD) Sandbox project in the Los Angeles and Puget Sound regions provides examples of successes and roadblocks in fare integration between public transit agencies and private MOD providers

## Toward Universal Access

Alice Grossman and Katherine Idziorek

November 2020

<https://www.enotrans.org/en-resources/toward-universal-access-a-case-study-in-the-los-angeles-and-puget-sound-regions/>

The requirements of the ADA apply to all transportation services whether or not they receive federal funding. But they do vary depending on what transportation mode(s) are involved, whether or not paratransit is available in the service area, and other specificities of the program. Like all transportation programs, the Federal Transit Administration's (FTA) MOD Sandbox programs must adhere to the ADA. But the case studies described in this report are pilot projects, and therefore are not required to comply with all regulations that typically govern regular, long-term public transit service. The MOD services in the Los Angeles and Puget Sound regions operate in areas that are also served by paratransit, which legally covers the ADA requirement for complementary paratransit when fixed route service is provided. But the existing paratransit does not provide the same level of on-demand access, and a goal of the pilot in both regions is to provide equitable service to all users.



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