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How Public Transit Agencies Maintain Regulatory Compliance While Using Transportation Network Companies

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**HOW PUBLIC TRANSIT AGENCIES MAINTAIN
REGULATORY COMPLIANCE WHILE USING
TRANSPORTATION NETWORK COMPANIES**

FINAL Report

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MTM290 – San Jose
State University

San Jose State University

**How Public Transit Agencies Maintain Regulatory Compliance
While Using Transportation Network Companies**

By
Aaron Vogel

A Planning Report Presented to

The Faculty of the Mineta Transportation Institute at
San Jose State University

In Partial Fulfillment for the Degree of
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1. Introduction

1.1 Why public transit agencies need to care about transportation network companies as a potential partner

The recent rise of Transportation Network Companies (TNC) has prompted some public transit agencies to collaborate with them to enhance their mobility options. Agencies around the country in cities like Pinellas Park, Fla., Boston, Mass., Dallas, TX and Livermore, Calif. are using TNCs as a part of their service delivery model to offer paratransit services, first and last mile solutions and general transit. This research focuses on the following questions:

1. How do public transit agencies adhere to regulatory requirements when implementing TNCs into their service plan?
2. Have agencies been challenged by any state or federal regulatory agencies on non-compliance by using TNCs?

1.2 A brief overview of TNCs, their relationship to public transit agencies, and some regulatory concerns

A TNC is a business that connects drivers and passengers through a mobile application or website such that a passenger can request and pay for a transportation service provided by the driver.^a For compensation, the TNC uses a digital network to connect individuals seeking transportation via the digital network to drivers who are logged on to a digital network and also receive compensation for providing that transportation service. Ride sourcing, another name for this type of service, is when passengers request, through a smartphone application, a ride from a private passenger vehicle typically driven by a non-commercial driver, which shows a driver's location and communicates to the driver the passenger's location. Fees are cashless and paid through credit or debit cards on the TNC's smartphone application. Fees are based on location, travel time, distance and sometimes levels of demand for service. The two largest TNCs are Uber and Lyft. Additional companies include Bridj, Gett, Safeher, Scoot and Via.

TNCs provide shared-ride, origin-to-destination services. The availability of these services are provided on demand in real time, utilizing TNC's independent contractors who are already on the road, to connect with riders needing transportation. Services are used for a variety of reasons, the same as those for taking public transit – access to jobs, medical appointments, social experiences and, in some cases, access to and from transit.

Public transit agencies around the country have partnered with TNCs to deliver paratransit service, first and last mile solutions and general transit services. Agencies in Boston, Mass., Richmond, Va. and Dallas, TX have built partnerships to enhance paratransit service by providing same day services through subsidized TNC trips.

^a Wisconsin State Legislature, *Assembly Bill 143*, accessed March 1, 2017
<http://docs.legis.wisconsin.gov/2015/related/proposals/ab143>.

Agencies in Los Angeles and Livermore, both in California, will be or are paying for part of TNC trips to and from a train station to provide first and last mile solutions. Other agencies have recently reduced service, by eliminating bus routes in Pinellas, Dayton, and suburban Denver, offering TNC trips as a general transit option. These agencies offered TNC trips as the option for those left without any transit service due to service cuts. In many cases subsidizing a TNC trip is much cheaper than operating a low ridership fixed route bus line.

Unlike transit agencies, who are required to comply with a wide range of regulations such as the Americans with Disabilities Act (ADA), regulations issued by the Federal Transit Administration (FTA), Title VI issued by the Office of Civil Rights (OCR), and others, TNCs are not subject to this same set of regulations because they are considered a technology company and not a transportation company. In addition, drivers are considered independent contractors and not employees. Therefore, drivers do not have to provide payment options for those without a bank account, complete a drug and alcohol test or undergo extensive background checks, report ridership data, accommodate service animals and provide door-to-door service or wheelchair accessible vehicle access.

1.3 Why an evaluation of the regulatory issues facing TNCs/transit agency partnerships matters

TNCs have changed the way people in the United States use and think of transportation and mobility options. The convenience of real time and point-to-point transportation with TNC services competes with public transit and its traditional fixed route system.

Public transit agencies see potential benefits through integrating TNCs into their service plan. Recent declining ridership at agencies and cost increases per a passenger trip has agencies seeking ways to partner with TNCs to help reduce trip costs and attract ridership. But, a key challenge for public agencies in trying to partner with a TNC is adhering to common public transit regulations, particularly as it relates to the following requirements:

- Provide access to people with limited English proficiencies (LEP).
- Offer a cash payment solution.
- Ensure drivers and dispatchers in safety-sensitive positions are drug and alcohol tested.
- Report ridership data to the National Transit Database.
- Accommodate service animals.
- Provide people with disabilities door-to-door service.
- Provide wheelchair accessible vehicles.

1.4 An overview of evaluation methods

This research first conducted an extensive literature review to identify potential regulatory issues facing TNC/transit agency partnerships. Next, eight in-depth interviews were conducted with public transit agency staff involved in the use or planning the use of TNCs. The interviews focused on the decision-making process. Who are the decision

makers? What is the rationale for seeking to collaborate with TNCs? And, what are the regulatory concerns?

Qualitative data analysis was performed to identify the common themes across the interviews. This information was then used to develop a set of final recommendations for transit agencies planning to move forward with a collaboration with TNCs.

1.5 Structure of this report

The rest of this report is structured as follows. Chapter 2 discusses the decline of public transit ridership, the rise of TNCs, public transit and TNC partnerships and potential regulatory concerns. Chapter 3 describes evaluation design that includes evaluation questions and their justification, data collection and analysis procedures used, while Chapter 4 covers the evaluation findings from research and interviews conducted. The report concludes with a brief summary and reflection of findings with key takeaways, recommendations for future research and a conclusion.

2. The decline of public transit, the rise of TNCs, public transit and TNC partnerships and potential regulatory concerns

This section highlights the recent past and present of public transit and customer transportation options. Specifically, this sets out to describe the decline of public transit use, the rise of TNCs, present TNC partnerships where agencies use a TNC for services, and regulatory concerns that could be problematic with using them for public service.

2.1 The decline of public transit ridership

Public transit ridership continues to decline while the population continues to increase. Public transit reached an all-time ridership record in 2014. Between 2014 and 2016 during the peak rise of TNCs, the nation saw a 4.5% decline in public transit ridership while the population increased in size by 4.5 million people.^b The four major cities in Texas had ridership stay relatively flat since 1999 with steady decline of 8% since 2014, while its population grew 47%.^c These trends can be depicted in figure 1, below.

^b Robert Puentes, Ghost of Transit Past, accessed February 10, 2018, <https://www.usnews.com/opinion/economic-intelligence/articles/2017-05-17/how-can-we-reverse-declining-public-transit-ridership>.

^c Coalition on Sustainable Transportation, “New Austin & Cap Metro Transit Plan will waste billions of taxpayer dollars and totally fail,” accessed April 25, 2018, <http://www.costaustin.org/jskaggs/>.

Figure 1. Comparison of Transit Ridership & Population for Four Major Texas Cities, 1999-2016. Source: Coalition on Sustainable Transportation, "New Austin & Cap Metro Transit Plan will waste billions of taxpayer dollars and totally fail," accessed April 25, 2018, <http://www.costaustin.org/jskaggs/>.

The decline of public transit ridership is a nationwide epidemic. Los Angeles between 2014 and 2017 lost annual ridership of 113 million or 16.6 percent from its 2014 ridership.^d This decline is a large share of the nationwide downward ridership trend. Los Angeles is not alone as a large transit agency losing passengers trips. This loss is happening elsewhere in the largest urban areas, as shown in figure 2.

^d Wendell Cox, New Geography, “Los Angeles Transit Ridership Losses Lead National Decline,” accessed April 25, 2018, <http://www.newgeography.com/content/005800-los-angeles-transit-ridership-losses-lead-national-decline>.

Figure 2. Largest Transit Passenger Losses, 2014-2017 (Year Ended June) Urban Areas. Source: Wendell Cox, New Geography, "Los Angeles Transit Ridership Losses Lead National Decline," accessed April 25, 2018, <http://www.newgeography.com/content/005800-los-angeles-transit-ridership-losses-lead-national-decline>.

Figure 3. California transit trips per capita. Down in California, but flat nationwide since 2009. Source: Southern California Association of Government, "Falling Transit Ridership: California and Southern California," accessed April 25, 2018, http://www.scag.ca.gov/Documents/ITS_SCAG_Transit_Ridership.pdf.

There are several theories related to the decline of public transit ridership. This paper and section does not attempt to analyze the root cause, but highlights the decline of ridership happening and a brief summary of theories causing the decline. Some theories in ridership decline are: reduced travel speed of transit due to congestion, eroding time competitiveness; increased number of employees working from home; lack of service after great recession services cuts from 2009; reduced gas prices; increased car sales; poor land use policies; and the convenience of origin-to-destination travel from a TNC.

2.2 The rise of TNCs

TNC ridership continues to increase at an accelerated rate from its inception. Lyft alone tripled its rides performed from 53.3 million in 2015 to 162.6 million in 2016 starting with only 100,000 rides its first year in 2012.^e Uber rides from 2014 to 2015 more than quadrupled from 172 million to 1 billion rides and doubled from 1 billion rides in 2015 to 2 billion rides in 2016.^f (figure 4.) Both companies have made significant market gains and show no signs of their ridership slowing down like public transit has experienced. Major international cities like New York City, that depend on their mass transit systems as the number one mode of travel, are seeing ridership decline with TNC ride hailing services disrupting the market. (figures 5 and 6.)

^e Forbes, “Lyft Rides Tripled Last Year, But Remains Far Behind Uber,” accessed April 25, 2018, <https://www.forbes.com/sites/briansolomon/2017/01/05/lyft-rides-tripled-last-year-but-remains-far-behind-uber/#3e79b110199e>.

^f Forbes, “Uber Revenue and Usage Statistics 2017,” accessed April 25, 2018, <http://www.businessofapps.com/data/uber-statistics/>.

Figure 4. Uber (blue) and Lyft (green) riders in millions from 2014-2016. Source: Forbes, "Lyft Rides Tripled Last Year, But Remains Far Behind Uber," accessed April 25, 2018, <https://www.forbes.com/sites/briansolomon/2017/01/05/lyft-rides-tripled-last-year-but-remains-far-behind-uber/#3e79b110199e>.

Figure 5. Annual change in NYC ridership by mode in millions, 2015 to 2016. Source: Schaller Consulting, “Unsustainable? The Growth of App-Based Ride Services and Traffic, Travel and the Future of New York City,” accessed April 21, 2018, <http://schallerconsult.com/rideservices/unsustainable.pdf>.

Figure 6. Annual change in NYC ridership by mode in millions, 2012 to 2016. Source: New York City Economic Development Corporation, “Transportation trends in NYC: New York City’s transportation industry is in the midst of an upheaval. Ridership through app-based services like Uber and Lyft has surged, while subway and bus ridership has declined,” accessed April 24, 2018, <https://www.nycedc.com/blog-entry/transportation-trends-nyc>.

2.3 Public transit and TNC partnerships

Public agencies are seeing the impacts TNC have on transporting the public. Uber and Lyft together had over 71 million trips per a month in the United States in 2016^g compared to the 472 million trips completed per a month by public transit.^h Thirteen percent of total trips performed were from TNCs. Many public transit agencies are trying to find ways to incorporate TNCs into their service delivery model via supplementing paratransit services, offering first and last mile solutions, or filling the service gaps for areas under served, or areas losing fixed route services due to cost ineffectiveness. A list of agencies partnering with a TNC or planning to is available in table 1.

^g Kia Kokalitcheva, Here's How Uber Fared As Compared to Lyft In July, Fortune, August 2016, accessed February 10, 2018, <http://fortune.com/2016/08/03/uber-july-data/>.

^h John Neff and Matthew Dickens, 2011 Public Transportation Fact Book; 2011, accessed February 10, 2018, http://www.apta.com/resources/statistics/Documents/FactBook/APTA_2011_Fact_Book.pdf.

Table 1. Characteristics of selected transit agencies partnering with a TNC for service or planning

Agency Name	Urbanized area served	Modes	2014 Unlinked Passenger Trips (thousands) ⁱ	Selection Criteria**	Brief Program Details
City of Centennial	Centennial, CO	N/A*	N/A*	1	First & last mile solution for residents going to and from the RTD Dry Creek light train station within the RTD Call-n-Ride service area, free and on-demand, Monday – Friday, 5:30am – 7pm, Nov. 2016 to Feb. 2017. ⁱⁱ
Dallas Area Rapid Transit	Dallas, TX	Commuter rail, Demand response, Demand response taxi, Light rail, Bus, and Vanpool	70,863.3	1	Paratransit next day or same day service for Eligible “DART” participants offered for free with a two hour advance reservation daily 8am – 5pm, anywhere DART goes, May 2017 to Sept. 2019. ⁱⁱⁱ
Greater Dayton Regional Transit Authority	Dayton, OH	Demand response, Bus and Trolleybus	10,718.3	1	First & last mile solution & Fixed Route replacement in suburban areas of Dayton called Connect On-Demand, free trips on demand to and from predetermined service area including transit transfer locations, June 2017 to present. ^{iv}
Greater Richmond Transit Company	Richmond, VA	Demand response, Bus and Vanpool	9,272.31	1	Paratransit same day service up to 30 day advance reservations for “CARE” participants, fare subsidy up to \$15, after first \$6, offered anywhere CARE goes M-F, 7am – 6pm, August, 2017 to July, 2018. ^v
Livermore Amador Valley Transit Authority	Livermore, CA	Demand response, and Bus	1,695.8	1	First & last mile solution for residents going to or from the local BART train station & possible replacement for Fixed Route service for those in Dublin city limits, early 2017 to present. ^{vi}
Los Angeles County Metropolitan Transportation Authority	Los Angeles, CA	Heavy rail, Light rail, Bus, Bus rapid transit, and Vanpool	2,339,176.8	2	First & last mile solution with shared rides to or from three yet to be determined transit station, projected to last 12 months and start Summer 2018. ^{vii}

Agency Name	Urbanized area served	Modes	2014 Unlinked Passenger Trips (thousands) ⁱ	Selection Criteria ^{**}	Brief Program Details
Orange County Transportation Authority	Anaheim, CA	Commuter bus, Bus, Demand response, Demand response taxi, and Vanpool	51,783.3	2	Still in planning stage
Pinellas Suncoast Transit Authority	St. Petersburg, FL	Commuter bus, Demand response, Demand response taxi, and Bus	14,503.7	1	First & last mile solution in mid-county Pinellas Park area & East Lake called Direct Connect, service to and from bus stops or general transit within their home zone, subsidizing a trip up to \$5, started in Feb. 2016 to present with many program expansions from fixed route service replacement and late night service for low income individuals. ^{viii}

i Federal Transit Administration, “NTD Transit Agency Profiles.” accessed February 6, 2018, <https://www.transit.dot.gov/ntd/transit-agency-profiles>.

ii Centennial Innovation Team and Fehr & Peers, “Go Centennial Final Report June 2017,” accessed April 22, 2108, <http://go.centennialco.gov/>.

iii Phone interview with Doug Douglas, VP, and Tammy Haenftling, AVP, Mobility Management Services, Dallas Area Rapid Transit, February 27, 2018.

iv Jessica Olson, “RTA expands options with new RTA Connect Service,” accessed February 4, 2018, <http://www.i-riderta.org/news/rta-expands-options-with-new-rta-connect-serv>.

v Greater Richmond Transit Company, GRTC Pioneers CARE On-Demand Service, accessed February 6, 2018, <http://ridegrtc.com/news-initiatives/press-releases/grtc-pioneers-care-on-demand-service>.

vi Livermore Amador Valley Transit Authority, Go Dublin, accessed January 25, 2018, <http://www.wheelsbus.com/godublin/>.

vii Emmy Huang, “Metro pursuing a partnership with Via to offer shared rides to select transit stations,” Thesource.metro.net, accessed February 4, 2018, <http://thesource.metro.net/2017/11/17/metro-pursuing-a-partnership-with-via-to-offer-shared-rides-to-select-transit-stations/>.

viii Pinellas Suncoast Transit Authority, Press Releases, accessed February 5, 2018, <https://www.psta.net/about-psta/press-releases/>.

*Not a transit authority

** Selection criteria details are in section 3.3

The widespread use and common knowledge of TNCs make collaboration of interest for many agencies. TNCs can improve the riders experience with respect to paratransit where technology is ancient, reduce general trip costs, improve mobility options through a transit network, and increase overall transit access. Recent study by the FTA showed the annual paratransit trip cost nationwide from 1999 to 2012 increased 138%, from \$14 to \$33 compared to the fixed route cost increasing only 82%.ⁱ One analysis in May 2015 illustrates that the national average TNC trip is roughly \$13.^j There is a potential cost reduction from a \$33 paratransit trip that could be completed by a TNC at an average of \$13 a trip.

According to the City of Centennial, the Go Centennial cost to the user for the existing Call-n-Ride service in 2015 was \$2.60 for a local trip.^k Call-n-Ride trips were subsidized in the Dry Creek service area at an average cost of \$18.54 per boarding. Under the new pilot, Centennial trips, through Lyft Line, service is free to customers. “Each trip is subsidized at the market rate, which was on average \$4.70, ranging from \$2.56 to \$16.24. RTD’s Access-a-Ride point-to-point accessible service costs the user \$4.70 for local trips and \$8.50 for regional trips. Each trip is subsidized by \$42.96. Go Centennial Access’ point-to-point accessible service is free for the user. It is subsidized at an average of \$6.82 per ride, ranging from \$3.50 to \$12.96, plus an additional cost of \$26.50 per hour. Go Centennial Access subsidized an average of \$20.07. Go Centennial first and last mile service is a 78 percent reduction in total cost compared to Call-n-Ride. Go Centennial Access (or paratransit service) is an 86 percent reduction in cost as compared to RTD’s equivalent Access-a-Ride service.”^l

ⁱ Marilyn Golden, Accessible Transit Services for All, *FTA Report* No. 0081 (2014): 13.

^j SherpaShare Inc., “What Uber, Lyft Drivers Earn per Trip,” accessed February 9, 2018, <https://www.sherpashare.com/share/what-uber-lyft-drivers-earn-per-trip/>.

^k Centennial Innovation Team and Fehr & Peers, “Go Centennial Final Report June 2017,” accessed April 22, 2108, <http://go.centennialco.gov/>.

^l Ibid

Figure 7. Compares subsidies and user fees for Go Centennial services to RTD services (Call-n-Ride and Access-a-Ride) First and Last Mile costs reduced from an average of \$21 (2015) to an average of \$4.7 Source: Centennial Innovation Team and Fehr & Peers, "Go Centennial Final Report June 2017," accessed April 22, 2108, <http://go.centennialco.gov/>.

The partnership with GRTC began with UZURZ to launch services. UZURV at GRTC's request provided CARE On-Demand (Paratransit) customers with more than 6,000 rides with an on-time performance rate of 98%, much higher than industry standard paratransit trips.^m

Ridership with TNC partnerships continue to grow as shown in the figure below. PSTA program ridership has quadrupled in seven months. In general, customer transportation preferences are changing. Despite the decline of public transit ridership, TNC ridership continues to rise as depicted below.

Figure 8. 2017 PSTA TNC pilot ridership quadrupling in seven months. Source: Data provided direct to author from Pinellas Suncoast Transit Authority

“The annual operating cost of fixed route services that were eliminated and replaced with RTA Connect On-Demand was over \$500,000. Since the launch of this pilot in June 2017, there have been 1,596 trips provided with an average cost of \$6.83 per trip. Compare this to the typical cost per trip on the most unproductive fixed routes of more than \$100.00 per trip. To date, RTA has received positive feedback from customers as they are now receiving increased service, accessibility and travel options to connections at our transit hubs and transfer points within our service area.” Data provided directly to author from Brandon Policicchio, Chief Customer and Business Development Officer, Greater Dayton Regional Transit Authority.

^m CBS 6 News, “Following CARE Van complaints, GRTC launches ‘flexible’ on demand service,” accessed April 3, 2018, <http://wtvr.com/2018/03/16/grtc-launches-flexible-on-demand-service/>.

2.4 Regulatory regulations for public transit and the relevance of this research

The relevance of this evaluation is to learn how agencies are maintaining regulatory compliance when using TNCs who are not compliant. TNCs provide a service much like the taxi industry does, but are not required to abide by the same regulations. This can provide an unfair advantage in competition between the two and make partnership more difficult. TNC operators are considered independent contractors, not employees, although this concept is in litigation in several states. TNCs market themselves as a technology company and not a transportation company resulting in differences in adhering to standard transit requirements like FTA, ADA and Title VI. The fact that TNCs provide a general public service much like taxi companies do but do not have to adhere to the same regulations is particularly peculiar. Based on current federal regulations, public agencies must provide the following when using federal funds to provide transportation service:

Table 2. Regulations for public agencies to consider when using a TNC

Regulatory Requirement	Regulatory Agency	Regulatory definition summary
Provide access to people with Limited English Proficiencies (LEP)	Title VI	Recipients of federal funds must take reasonable actions to allow access to Limited English Proficient (LEP) persons. ⁱ
Offer a cash payment solution	Title 31	Cash is a legal currency that cannot be denied for debt, taxes, public charges, and dues. ⁱⁱ
Employees in safety sensitive positions are drug and alcohol free and tested	FTA	Prevention of alcohol misuse and prohibited drug use in transit operations required pre, post and random employment testing. ⁱⁱⁱ
Report ridership data to the National Transit Database	FTA	Recipients of federal 5307 and 5311 funds must report various data to NTD in a pre-structured manner. ^{iv}
Accommodate service animals	ADA	A dog or miniature horse that is trained to perform or to work for an individual with a disability shall be allowed to accommodate them in public places such as transit. ^v
Provide people with disabilities door to door service	ADA	Paratransit services serving individuals with disabilities shall provide origin to destination services that can be curb-to-curb and door-to-door for those in need. ^{vi}
Provide wheelchair accessible vehicles.	ADA	Persons in a wheelchair shall have equal access to transit as those not in a wheelchair, including comparability to fixed route service area and hours. ^{vii}

ⁱ U.S. Department of Health & Human Services, “Limited English Proficiency (LEP),” accessed April 21, 2018, <https://www.hhs.gov/civil-rights/for-individuals/special-topics/limited-english-proficiency/index.html>.

ⁱⁱ U.S. Legal, “Legal Tender Law and Legal Definition,” accessed April 21, 2018, <https://definitions.uslegal.com/l/legal-tender/>.

ⁱⁱⁱ Federal Transit Administration, Department Of Transportation, “49 CFR 655 - Prevention Of Alcohol Misuse And Prohibited Drug Use In Transit Operations,” accessed April 21, 2018, <https://www.gpo.gov/fdsys/granule/CFR-2012-title49-vol7/CFR-2012-title49-vol7-part655/content-detail.html>.

^{iv} Federal Transit Administration, “The National Transit Database (NTD),” accessed April 21, 2018, <https://www.transit.dot.gov/ntd>.

^v Southwest ADA Center, “Service Animals and Emotional Support Animals,” accessed April 21, 2018, <https://adata.org/publication/service-animals-booklet>.

^{vi} Federal Transit Administration, ADA, “Origin-to-Destination Service,” accessed April 21, 2018, <https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/origin-destination-service>.

^{vii} Findlaw, “Transportation and the Americans with Disabilities Act (ADA): Q&A,” accessed April 21, 2018, <https://civilrights.findlaw.com/discrimination/transportation-and-the-americans-with-disabilities-act-ada.html>.

2.5 What public agencies need to know

Public agencies need to know how to maintain regulatory compliance with the federal government if they choose to integrate TNCs into their service delivery. 1) What are the regulatory areas that need to be addressed by agencies that TNCs cannot assist with; 2) How do agencies remedy these concerns or issues; 3) Are agencies being challenged by the federal government on compliance from integrating TNCs into their service delivery. Failure to comply could jeopardize one's ability to receive federal funds which represents the majority of funding agencies receive.

3. Study Methodology: In-Depth Interviews

3.1 Evaluation questions and their justification

This research sets out to answer the following questions:

1. How do agencies adhere to regulatory requirements when implementing TNCs into their service plan?
2. Have agencies been challenged by any state or federal regulatory agencies on non-compliance by using TNCs?

The first question examines how agencies are partnering and using a TNC for public transit service while maintaining regulatory compliance to ensure federal funding is not withheld. TNCs are well known for not accepting themselves as a transportation company and not adhering to the common transportation regulations as their drivers are considered independent contractors and not employees. Common transportation regulations from FTA, ADA, and Title VI are safety related and equitable and accessible requirements. TNC drivers do not have to complete a drug and alcohol test, do not use DOJ finger print background checks, offer payment options for those without a bank account, and provide wheelchair accessibility, or origin to destination assistance.

The second question seeks to find out if any compliance solutions with these partnerships have been challenged by any state or federal agencies. This will help other agencies determine feasibility for scalability of new and existing programs.

3.2 Data collection procedures

Data was collected through an extensive literature review and in depth over the phone interviews. The literature comprised a review of relevant peer and journal papers in order to identify the most impactful and well known industry regulations governing TNCs and public agencies. Next, specific requirements imposed by Title VI, FTA, and ADA that public transit agencies must adhere too, which TNCs do not, were identified and reviewed. This list is shown in table 2 and provides the basis for the structure and foundation of the interview questions.

Interviews were conducted with representatives from eight agencies, seven US transit agencies and one city municipality.

Interview procedures were as follows:

1. Selected agencies that meet the criteria described below.
2. Contacted prospective interviewees.
3. Completed in-depth interviews by phone.
4. Recorded interviews and took detailed notes for qualitative data analysis.

3.3 Selection criteria of interviewees

The selection criteria for interviews was based on an agency planning to use a TNC or already using one to provide services. Their first-hand experience helped quickly understand possible regulatory barriers and approaches used to ensure compliance. Given

the recent pioneering of TNCs as part of public transit, selection of interviewees include small and large sized agencies based on unlinked passenger trips across the United States that meet the following two selection criteria:

1. Experience with a TNC: This group of agencies can deliver the most information on how they implemented TNCs while maintaining regulatory compliance. They are most knowledgeable in responding to challenges stemming from regulatory agencies and advocacy groups. This could include agencies that ended a partnership with a TNC to understand complications, issues or concerns that warranted the stoppage.
2. Plan to or want to use a TNC: Examination for this group is on agencies that understand regulatory concerns for using TNCs and what might be final action items before implementation. In addition to understanding action items, this population can help me understand what are some barriers of entry preventing them from implementing a partnership faster.

All eight agencies selected to interview fell within one of the above two criteria. Six fell into the experience within TNC category (1). Two fell into planning to or wanting to use a TNC category (2). The eight agencies ranged from rural to urban, and those using or considering TNCs as a part of their service delivery model to offer paratransit services, first and last solutions, and general transit. Table 1 shows the interviewed agencies for this research and the type of service, they use a TNC for.

3.4 Analysis Procedures

Qualitative data analysis procedures used a deductive and primarily inductive approach. A small amount of information provided was already known with some agencies where a lot of program information was provided online but not globally across each agency. This deductive approach allowed for expanding pre-set follow up questions such as how and why to expand qualitative data collection. A majority of the research analysis is described as inductive to explore and build a comprehensive data set to analyze.

Data analysis started with a summary of findings from open and closed ended questions. Themes were established by taking similar responses, finding patterns, trends and key takeaways. Categories varied from major concerns, challenges, non-issues, future plans, resolutions and recommendations for change.

4. Interview evaluation findings and analysis

Interviews produced valuable findings and analysis of information to help understand how agencies adhere to regulatory requirements when implementing TNCs into their service plan, and if agencies have been challenged by any state or federal regulatory agencies for non-compliance by using TNCs. These findings are divided by areas of funding, top concerns from agencies, non-issue regulations, added findings of interest, common themes identified beyond regulatory compliance, and agency recommendations for TNC partnerships.

4.1 Funding source matters significantly

The funding method used to pay for trips vary along with regulatory requirements. Funding availability comes in three options: local, state and federal. The source of funds comes with the caveat of which additional regulations to follow. Everyone must adhere to their local regulations, if state and or federal funds are used they must abide by those too. Federal funds have several strings attached having the most robust regulatory guidelines to follow. Some of the major concerns brought up by agencies are not relevant if using local money.

Local, state, and federal funds were all used resulting in different service approaches to ensure compliance. For example, DOT drug and alcohol testing are not an issue if using local funds. This allows for an agency to have a direct partnership with a TNC without needing to offer alternative options to be compliant. Agencies are using local city or county tax money to provide general transit, first last mile services and services for paratransit eligible clients funded through the agency's main paratransit program where all funds are from local dollars. Paratransit programs are not always 100% locally funded making this an important finding. Additional funding options came from their transportation management association, state improvement or enhancement funds, and Mobility on Demand (MOD) Sandbox Program funds from FTA. One size does not fit all as you can tell by the various funding sources used.

The only federal funds used in partnering with a TNC is from MOD projects. This is another important takeaway from my research. MOD's call for projects was released in 2016 as part of a research effort by the Department of Transportation to support agencies and communities to integrate new mobility tools and services, to make programs more efficient and accessible.ⁿ Important item to note is that the MOD applications had a section where agencies could asked if a waiver was required. For those using MOD funds they asked for compliance waivers to use a TNC. During pre-award agencies spoke directly with FTA clarifying areas they need waivers and exemptions from. This explains how the few agencies using federal money are able to successfully comply and implement a TNC into their service delivery model.

ⁿ Federal Transit Administration, "Mobility On Demand," accessed March 28, 2018, <https://www.transit.dot.gov/research-innovation/mobility-demand-mod-sandbox-program.html>.

4.2 Equity, accessibility, drug and alcohol testing and data reporting regulation were top concerns from agencies

Equity and accessibility was the leading regulatory concern to consider when partnering with a TNC. TNCs do not provide equitable and accessible services comparable to public transit. Agencies found workable solutions by adding a second provider to address this issue while still having a TNC as part of their service delivery model. Information shared on equity and accessibility considerations were comparability in services such as accepting all means of payment, wheelchair access, equal wait times and service area, as well as equitable fare pricing.

Drug and alcohol testing was the biggest concern for agencies using federal transit dollars to pay for service and stay compliant. Recipient of federal funding must provide service where operators or contracted independent operators are part of a robust drug and alcohol prevention program that includes prescreening and ongoing random testing. Not all agencies are paying for service with federal dollars so this was not a concern for them. For example, City of Centennial is a city entity that launched a TNC partnership paid for by local dollars. They are not held to the same standards as transit agencies, therefore, drug and alcohol testing is not required to transport the public. Drug and alcohol testing complaint solutions are discussed in great detail in the conclusion chapter, under Analysis and Recommendation of Findings.

Collection of ridership data was a common concern to plan affectively and accurately report it to National Transit Database (NTD). This was an issue collectively shared by all agencies after equity, accessibility and drug and alcohol testing. TNCs provide limited trip information which does not meet the federal reporting needs with FTA's NTD like average ridership by hour, total revenue hours and miles by weekday, Saturday and Sunday or vehicles operated in maximum service. As much as this was a concern, no agency reported that they are actually reporting program trip information to FTA as part of their overall system ridership. However, many want to report it to receive credit for the rides. Paratransit trips can easily be recorded and reported under NTD's Demand Response category, which is where paratransit system information is reported. For programs that did not involve paratransit eligible passengers there was no understanding what bucket or category these trips should be reported as. This is cited as a major concern but has no actual recourse or regulatory compliance concern. It is possible that findings from FTA's MOD project could address this, if not, this could be a future item worth research or response from FTA.

4.3 Title VI, ADA, and FTA regulations that were not issues

Interviews covered potential and anticipated issues and the outcome concluded that they were not obstacles or barriers. Different Title VI requirements were asked such as providing fare processing for unbanked users and addressing limited English proficiencies. Meeting the needs of unbanked passengers while using a TNC are met by agencies educating passengers they can go to the store and load money onto a cash card similar to a debit card from one's bank. Some use a system wide fare card where people

can make cash payments by mail, in person at retail outlets, or electronically add money to the card for use as the main fare payment mechanism. Offer a secondary service provider like taxi that offers cash payments and direct call in reservations for those without a smartphone with a TNC application. A few agencies did not have to worry about this at all as the fare were free.

Title VI, Limited English Proficiency requirements were considered by all as important and fairly easy to comply with. TNC application offer multiple language options. In many cases a secondary service provider was used where customer could phone into a call center where bilingual staff are present or a third party language line was available for translation services. Although not mandated under Title VI, today's smartphone operating systems offer accessibility features to assist with application functionalities such as voiceover text on screens for people with visual impairments.

Figure 9. Voice over speak features available in the accessibility settings on an iPhone. Source: Apple Inc., “General, Accessibility, Voiceover,” accessed April 14, 2018, Apple Phone Settings.

Some ADA requirements were not issues. Requirements to meet wheelchair accessibility, services animal and comparable services to fixed route was non-relevant. Most program partnerships included a wheelchair accessible service provider as an alternative option like taxi when a TNC could not comply. In very few states and cities a TNC offered a wheelchair accessible vehicle such as Lyft and Uber WAV. The other option identified with two paratransit programs were to provide consumers with an “opt in waiver” that stated that the service provided were not ADA compliant, lacked drug and alcohol screening, operating as a pilot, and at their own risk.

Another ADA requirement that appeared to be a non-issue is to have services where passengers with disabilities are transported with comparable travel and wait times. Out of all the first and last mile and general transit services the requests for wheelchair users have not truly produced requests to yield the data for comparison. All TNC project

partnerships were served in areas where paratransit already existed. This resulted in no need for paratransit consumers to use other pilots, because paratransit services filled their service area needs and destinations, and was often more cost effective. For the non-paratransit programs reviewed, there were predetermined small service areas that reduce the desire for someone with disabilities to use the service as they would need to transfer or get back on paratransit services to reach their end destination.

Research results did not support anecdotal information about rumors on TNCs not accommodating service animals. TNCs or not, all transit programs required service animals to be transported as prescribed by ADA law. There was one incident reported out of all the programs but was resolved on site with all parties involved and the service animal was transported.

Door to door service requirements by ADA for complementary paratransit was not a problem for agencies to comply with. Programs using a TNC as part of their paratransit services had two methods to comply: 1) they used a secondary non-TNC provider like taxi that could provide door to door services since TNCs do not, and 2) used paratransit eligible passengers and had them opt-in to a non-paratransit service pilot that informed them that service is curb-to-curb only.

4.4 Additional findings of interest

There are additional findings of interest and information worth mentioning on top of the major themes explored already. The added findings include:

- No complaint or safety monitoring,
- Significant planning to provide wheelchair accessible service options,
- Direct TNC service agreements versus non service agreement,
- Collaboration with FTA,
- Minimum impacts from state and local regulation,
- Opting into a non ADA program.

No one expressed a desire to monitor complaints made on operators and safety ratings. There was no specific evaluation on complaint management or access to safety rating on TNC operators; however, there were opportunities to discuss when asking open ended questions about other challenges not discussed in regards to specific regulation, looking back would they do anything different in their partnership, and what feedback they have for other agencies. I would have thought it would be important to understand complaints made or access additional information on a complaint or safety related issue should a passenger have a serious enough claim blaming the agency for wrong doing when they initiated the program. From my experience agencies typically track complaints per a 1,000 passengers. This is currently unknown information and not reported due to lack of accessibility to TNC complaints made on operators and their safety rating information.

Go Centennial published a pilot goal to ensure customer satisfaction by measuring the star rating given by riders to drivers, but “was not available given privacy and liability restrictions offered by Lyft to its drivers.”⁹⁰

Despite paratransit availability, there was a lot of work put into making services wheelchair accessible without any substantial utilization. Due to the ADA, transportation services must have a wheelchair accessible option for those who request it. Programs that include a TNC had alternative options to directly or indirectly provide wheelchair accessible vehicles aside from paratransit services. In one case, according to Melanie Morgan, Innovation Team (i-team) Data Analyst from the City of Centennial, they paid for one wheelchair accessible vehicle to be in operations for people with service animals, other assistive devices like oxygen machines, and people with audiovisual impairment at all times yielding 20 passengers over the course of their six month pilot. This effort shows the planning work that is taking place to make service accessible for all regardless of service areas already being served by paratransit services.

Projects operated in areas where paratransit and wheelchair accessible services already existed yet they provided another layer of wheelchair accessibility. I thought this was an important take away as the ADA only requires paratransit services to go ¾ mile from a fixed route. In cases where a TNC helped serve a first and last mile or general transit solution because a fixed route bus route was cut, paratransit still remained available for wheelchair request for those eligible for paratransit. Added resources and wheelchair accessibility seemed to be a bit redundant, especially when there was little to no wheelchair passenger demand. A partnership with the local paratransit providers could have produced the required outcomes as several transit system had a county wide paratransit service area. Regardless of service cut areas these programs reviewed all had large paratransit footprints that went above and beyond fixed route services.

These programs have direct service agreements with a TNC to provide transportation which is a small fraction of the various partnerships announced nationwide. A majority of the media attention about agencies partnering with a TNC are not related to services requiring specific regulation compliance. Many agencies partner with TNCs to add them to the agency’s trip planning application and or offer discounts on trips starting or ending at transit stops with the use of a coupon code. In all of these circumstances the regulations discussed in this paper are relevant. There is less than a dozen agencies that I am aware of that use a TNC to delivery public transit services.

All transit agency employees interviewed that were employed during the initial launch of their project confirmed having a dialogue with one or more regulatory agencies. In most cases FTA regional offices were contacted to meet and discuss projects prior to implementation. Brandon Policicchio, Chief Customer and Business Development Officer with the Dayton RTA said they were contacted by FTA the day after articles were

⁹⁰ Centennial Innovation Team and Fehr & Peers, “Go Centennial Final Report June 2017,” accessed April 22, 2108, <http://go.centennialco.gov/>.

released to the public about their pilot. However, Dayton RTA and many other agencies started their planning and design by addressing regulatory requirements outlined in Secretary Foxx's letter December 5, 2016, Dear Colleague Letter. One interesting finding was that FTA never said to any agency in their discussions and reviews if their project was FTA approved or not. Their responses were minimum and focused on fact finding on how the programs were going to work. This was a global response from the majority of participants thus why I used the word "any" agency.

There was no significant state or local regulations prohibiting TNCs from complying with policies directly. Several state levels require background checks and minimum TNC insurance requirements. According to the CPUC, insurance levels must be at least \$1,000,000 when a passenger is in the vehicle.^p House Bill (HB) 100 in Texas took over the regulatory oversight for TNC in the state away from local municipalities including provisions for background check requirements.^q A similar scenario took place in Florida and others. Experiences have been positive for TNCs. Instead of having multiple jurisdictions and requirements from city to city, there is a level playing field throughout the state reducing barriers of entry due to more consistency. This has also been helpful in areas where politicians were absolutely against TNCs and banded them from business on a local level, like in the case in Hillsborough County in December 2014 slamming a cease and desist order to TNCs in the County.^r

Clients volunteering to opt into a non ADA program was another approach suggested for programs serving paratransit clients. Clients opt into a program that explicitly informed them the service is curb to curb only, and the agency has no jurisdiction over TNC drivers, including but not limited to pre-employment screening, physicals or drug and alcohol testing, training or ongoing performance evaluations.

4.5 Common themes identified beyond regulatory compliance

Common themes were identified beyond regulatory compliance when asking agencies if they would have changed their program approach or done anything different after having experience. Most wanted to see their pilot durations extend whether it was six months, a year or two years. Have service in an area that did not overlap another. Improve subsidies for wheelchair trips to make service an advantageous over paratransit. Others had no comments as program was still being evaluated.

There was strong interest in agencies wanting to use a TNC partnership to provide paratransit services. Of the four agencies currently using a TNC for non-paratransit services, they all expressed the desire to increase wheelchair accessibility and same day paratransit services for future project considerations.

^p California Public Utilities Commission, "Insurance Requirements for TNCs," accessed April 22, 2018, <http://www.cpuc.ca.gov/General.aspx?id=3802>.

^q Legislature of The State Of Texas, "H.B. No. 100," accessed April 22, 2018, <https://capitol.texas.gov/tlodocs/85R/billtext/html/HB00100F.htm>.

^r Christian Cámara, "Florida may move forward on TNC regs," accessed April 22, 2018, <http://www.rstreet.org/2015/02/27/florida-may-move-forward-on-tnc-regs/>.

There was two additional items beyond regulatory compliance that I found interesting. First, Massachusetts Bay Transportation Authority who is using Lyft to provide RIDE paratransit trips refused an interview as they declined to discuss and answer any regulatory requests. Based on publicly available information they appeared to have a well-planned out and regulatory compliant program. I was left speculating what was behind this as no other agency declined an interview that I reached out too. I hear stories of TNCs not available in rural areas or certain times of the day. Not one agency brought up an issues with TNC availability.

4.6 Agency recommendations for TNC partnerships

A wide array of feedback was received on agency recommendations for TNC partnerships for others to consider. First and foremost was for agencies to review the regulations, understand them, address them and collaborate with FTA. Second most prominent recommendation was to use more than just a TNC to offer customers options which helps with customer service and compliance issues. Stay flexible, communicate program as “pilot” and engage community and advisory groups educating them on services. This includes determining funding source to understand some of the work around needs, monitoring for equity and talking with other agencies to learn what kind of data they are and are not receiving from TNCs.

5. Conclusion

5.1 Summary of findings

The literature review and interviews clarified how public transit agencies adhere to regulatory requirements when implementing TNCs into their service plan and that no agencies were challenged by any state or federal regulatory agencies on non-compliance by using a TNC.

Research provided general agency background and services, various TNC partners, problematic regulations impacting service designs, areas with little to no concerns, minor concerns that correlate to regulations, findings beyond regulation, and agency recommendations. Table 3 lists key themes, findings and brief descriptions for each.

Table 3. List of key themes, findings, and briefings

Key themes and findings	Brief descriptions
Agency backgrounds and services	Agencies ranged from a city municipality, to transit agencies with annual ridership levels between 1.6 million and 2.3 billion operating several transportation modes with a TNC partnership for paratransit, first and last mile, or general transit services.
TNC partners	TNC firms used are Uber, Lyft, Via, and UZURV
Problematic regulations and other areas that affect program designs greatly	Program designs are heavily based on how service is funded, addressing FTA's drug and alcohol requirements, is service paratransit or not, some equitable and accessible service, and if trips are booked by an app or not.
Regulations that were not major concerns but expected to be	Offering cash fare processing, data accessibility, accommodating limited English proficiency and service animal needs were not major regulatory concerns.
Common findings with a correlation to regulations	Implement a voluntarily opt in to a non-ADA program option clause, there was no major state or local regulations hindering success, always collaborate with FTA offices, and operate non-paratransit services in areas with a large paratransit footprint.
Common findings beyond regulations	Common interests are to expand or introduce TNCs into paratransit services, extend pilot durations, and service areas that do not already have service, and lots of efforts made to make wheelchair accessible.
Agency recommendations	Agency feedback was to learn the regulations and address them, collaborate with FTA, use more than just a TNC to offer customers options, stay flexible, communicate program as "pilot," engage and educate community and advisory groups on services, determining funding sources early on, monitor for equity and learn what kind of data is TNCs are providing other agencies.

5.2 Analysis and recommendations on findings

Tactics to address federal drug and alcohol regulatory requirements standout as the single biggest barrier of entry into a TNC partnership. Several methods were discovered on how to address this major barrier. I acknowledged various solutions in a short term and long term framework and unverifiable solutions. Using local, state or federal money to fund the program will shape different short and long term program designs.

DOT drug and alcohol regulation (49 CFR part 655) states rule apply to recipients and sub recipients of §5307, § 5309, and § 5311 federal funds, this includes contractors and subcontractors.^s A ride sourcing company (TNC), in general, would be a contractor with no categorical exemption.^t "A contractor, under this rule is any entity providing a safety-

^s Federal Transit Administration, "Shared Mobility FAQs: Controlled Substance and Alcohol Testing Requirements," accessed May 4, 2018, <https://www.transit.dot.gov/regulations-and-guidance/shared-mobility-faqs-controlled-substance-and-alcohol-testing-requirements>

^t Ibid.

sensitive function for a recipient or sub recipient. The contract may be a written contract or an informal arrangement that reflects an ongoing relationship between the parties.”^u

There was two short term solutions identified to partner with a TNC to navigate through federal drug and alcohol regulatory requirements. One solutions was the Mobility on Demand (MOD) 5312 transportation innovation funds that were limited to eleven grant recipients in 2016. This project was funded from research dollars, permitting the Secretary to set terms and conditions for this grant, which FTA ultimately determined the drug and alcohol rules would not apply to these funds even if they receive 5307, 5309, or 5311 funds.^v Los Angeles and Pinellas Suncoast Transit Authority were both recipients of MOD funds.

The second short term solution is using a TNC for services as a pilot program for up to one year. “This FTA exemption applies to agencies subsidizing first and last mile, same day paratransit services or other service pilot programs and that there are no FTA funds in either the vehicles or the operations of the service, then the drug and alcohol rules do not apply, even if the public transit agency is contracting with only one ride sourcing or one taxicab company.”^w This up to a one year pilot is challenging for many agencies as it requires all local or state money be used for operations and the purchasing of vehicles.

There are two confirmed long term solutions with one fairly unrealistic. An agency could stop receiving 5307, 5309, and 5311 federal funds altogether for capital or operating assistance eliminating them from the DOT drug and alcohol regulation (49 CFR part 655) requirement. This is unrealistic as a good portion of public agencies depend on subsidies by the federal government.

The second long term solution is the taxicab exception. This applies when two or more providers such as a TNC or a Taxi company is used to ensure service can be available for all passengers and the provider is chosen by the transit passenger. “While some passengers may have only one choice, this does not change the fact that many passengers will have more than one choice, and so the taxicab exception will apply to all of the providers.”^x The taxicab exception does not have time constraints, which makes it a very viable long term solution. For instance when using local funds there is a one year limit for the pilot option. It ensures equitable, accessibility service for all and hopefully creates competition in the market place.

At this time there are two possible unknown solutions worth revealing. One is TNCs being compliant with the DOT drug and alcohol requirements. The other is passengers “opting in” to a program where a TNC is used. Two agencies interviewed are or will be using this approach for paratransit alternatives. The “opt in” option acts as a type of advertisement and conveys the message that the service is not ADA compliant with trips

^u Ibid.

^v Ibid.

^w Ibid.

^x Ibid.

to limited to curb-to-curb, no jurisdiction is held over TNC driver for pre-employment screening, physical exam, drug and alcohol testing, training or on-going employee performance evaluations. Notifying customers of key service differences, and acting as a waiver. My interviews and literature research did not result in any specific legal language granting this as legally acceptable to evade the DOT drug and alcohol requirements. Agencies using this method are using both local and federal funds so that could be contributing to FTA not intervening.

If TNC operators become compliant with the DOT drug and alcohol requirements then it would result in an ideal long term solution to address one of the largest barriers. It would allow for any agency to engage in a TNC partnership to provide public transportation services. This would make partnerships between agencies and TNCs simple and readily accessible. It can be perceived as more socially responsible for TNCs to comply with regulations and many other laws that are in place to protect public safety. This model should be further explored and further in future research with the recommendations below.

One interesting discovery made by Doug Douglas, Vice President Mobility Management Services, Dallas Area Rapid Transit, was despite TNCs not having to adhere to the DOT drug and alcohol requirements the customer service experience for the passengers is fair more consistent and superior than those operators adhering to the DOT drug and alcohol requirements with added training.

5.3 Future research recommendations

Exploring the feasibility and potential costs of a TNC maintaining compliance with DOT drug and alcohol requirement is something I recommend for future research. Given the limited long term drug and alcohol compliance solutions identified in the previous section TNCs; the legislators should analyze the feasibility of mandating that TNC independent contractors; to adhere to the DOT drug and alcohol requirements.

This analysis should include:

1. Comparative analysis of transportation industry safety results that have and do not have to follow the DOT drug and alcohol requirements, as well as industry safety results before and after the implementation of this regulations to determine if positive results materialize.
2. How a TNC program would be implemented and managed since drivers are independent and do not check into an office;
3. What is the program cost and how would the rate increase affect the end users fare.
4. Are TNC service price elastic or inelastic and could public transit ridership grow as TNC service fall due to higher prices.

Researching these items will help determine if the DOT drug and alcohol requirements are beneficial for consumers and TNCs to adopt. As well as what are some of the cost implications that may occur for the companies and customers.

5.4 Final reflection

Emerging new technology and ridesharing companies continue to disrupt the transportation market. Public transit agencies are not blind to this fact. They are looking at ways to stay relevant in the market place. Partnering with TNCs to leverage their ridesharing capabilities to deliver paratransit services, first and last solutions, and general transit services are examples.

It is a challenge for governments to keep up with the speed of emerging new technology and ridesharing companies. Therefore, one must be creative to remain compliant with existing regulations that might not recognize emerging new technology and ridesharing services. This research uncovers one of the single biggest regulatory issues when using a TNC. That is the DOT drug and alcohol provisions for transportation the public with federal funds.

Despite this primary regulatory hurdle there are still provisions to work with TNCs and be compliant. Until there are major regulatory changes and TNC are recognized in further policies, the best way to utilize a TNC for public transit service is by offering customers a “choice” between a TNC and a Taxi vendor who is compliant with federal regulations.

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Appendix

List of Interviewees:

- Curt Burlingame, Manager Contracted Services, Orange County Transportation Authority
- Doug Douglas, VP, and Tammy Haenftling, AVP, Mobility Management Services, Dallas Area Rapid Transit
- Christy Wegener, Director Operations and Planning, Livermore Amador Valley Transit Authority
- Bonnie Epstein, Transit Planner, Pinellas Suncoast Transit Authority
- Melanie Morgan, Innovation Team (i-team) Data Analyst, City of Centennial
- Brandon Policicchio, Chief Customer and Business Development Officer, and Sally Brown, manager of Alternative Transit Solutions, Greater Dayton Regional Transit Authority
- Timothy Barham, Chief of Transit Operations, Greater Richmond Transit Company
- Marla Westervelt, Principal Transportation Planner, Los Angeles Metropolitan Transportation Authority

Interview Guide

Hi _____,

This interview will take approximately forty five minutes.

Are you okay if I record this audio conversation to allow me to come back to reference the material in the future for my writing? If yes, Okay thank you. Give me a few seconds to start the recording app on my phone for this interview.

I do want you to know that I may include some or all of the information provided today in my final report. Please be aware that you are being recorded and I could quote you and identify your name, unless instructed by you not to.

Should I move forward with quoting you by name in the report, I will share a draft with you by email so you can review and insure accuracy prior to using it. Is that okay with you?

Lastly, I do plan to mention your name, title and agency on a list in my report for one of the agencies interviewed. Are you okay with that?

Okay, great, we will start with some introduction questions.

Introduction questions for agencies with TNC experience:

1. Could you tell me what your role has been at (Use Agency Name) with respect to partnering with TNCs?
2. I want to confirm you that (Use Agency Name) is using TNCs for a partnership to _____ (Options: offer paratransit services, first and last solutions, and/or augment recent fixed route service cuts) is this correct?
3. Are there any additional partnerships with TNCs you are considering for the future?
4. What was the purpose for launching a partnership with TNCs to provide these services?

Questions for agencies that have experience using TNCs:

1. What federal regulatory concerns do you consider the three biggest issues when planning to partner with a TNC?
2. Regulations might vary based on the funding source used towards paying for trips. To this point, how have you funded TNC trips?
3. Did your agency have any discussions with FTA, Office of Civil Rights or any other regulatory agencies about regulatory compliance prior to using a TNC? If yes;
 - a. Which agencies did you talk too?
 - b. Did they review your plan for compliance or just provide answers to your questions?
4. How are you addressing the Limited English Proficiency (LEP) requirements made by Office of Civil Rights, Title VI when partnering with a TNC?
5. How have you been able to maintain compliance with federal drug and alcohol testing requirements while using a TNC?

6. How have you been able to maintain compliance with ADA requirements to make service wheelchair accessible while using a TNC?
7. Since a TNC requires the use of a smart phone and credit or debit card to book a trip, what is being done to ensure Title VI complaint with providing some sort of cash fare processing for those without a bank account?
8. How are you ensuring service animals are transported and not denied by a TNC as required by ADA?
9. Have you had complaints about passengers being denied service due to a service animal?
 - a. If yes, please elaborate why?
10. Are you reporting TNC trips to NTD as part of your overall system ridership?
 - a. If yes, how do you obtain sufficient trip information to be able report the necessary NTD related information to FTA?
11. Do you have any specific state regulations that need to be met to use TNCs that might be above and beyond federal regulations?
12. Are you facing any other regulatory issues or challenges related TNCs that we haven't discussed yet?
 - a. If yes, please elaborate why?
13. Looking back would you have changed or done anything differently with the TNC partnership to better ensure regulatory compliance?
14. Do you anticipate using TNCs as part of your service delivery model next year? Why or why not?
15. What recommendations would you give other agencies to maintain regulatory compliant when introducing TNCs into their service delivery models?

Introduction questions for agencies planning for TNCs but without TNC experience:

1. Could you tell me what your role is with your agency with respect to partnering with TNCs?
2. Can you share with me the type of service you anticipate using a TNC for??
3. When do you plan to start a partnership with a TNC for service?
4. What is the purpose for launching a partnership with a TNC to provide these services?

Questions for agencies planning for TNCs but without TNC experience yet:

1. What federal regulatory concerns do you consider the three biggest issues when planning to partner with a TNC?
2. Regulations might vary based on the funding source used towards paying for trips. To this point, how do you plan to fund TNC trips?
3. Has your agency had any discussions with FTA, Office of Civil Rights or any other regulatory agencies about regulatory compliance prior to using a TNC? If yes;
 - a. Which agencies did you talk too?
 - b. Are they or will they review your plan for compliance or just provide answers to your questions?
4. How do you plan to address the Limited English Proficiency (LEP) access requirements by Office of Civil Rights, Title VI when partnering with a TNC?

5. How do you plan to maintain compliance with federal drug and alcohol testing requirements while using a TNC?
6. How do you plan to maintain compliance with ADA requirements to make service wheelchair accessible while using a TNC?
7. TNCs require the use of a smart phone and credit or debit card to book a trip. How do you plan to ensure Title VI compliance with providing some sort of cash fare processing for those without a bank account?
8. How do you plan to ensure service animals are transported and not denied by a TNC as required by ADA?
9. Do you plan to report TNC trips taken to NTD as part of your overall system ridership?
 - a. If yes, how do you plan to obtain sufficient trip information to be able report the necessary NTD related information to FTA?
10. Are there any specific state regulations that you need to be meet to use TNC that might be above and beyond the federal requirements?
11. Are you facing any other regulatory issues or challenges related TNCs that we haven't discussed yet?
 - a. If yes, please elaborate why?
12. Do you have any recommendations for other agencies to maintain regulatory compliance while starting a partnership with a TNC?