Mobility as a Public Service:
Integrating Civil Rights Laws in Partnerships Between Transit Agencies and Ride-Hailing Companies

by

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Abstract

Recently, a number of public transportation agencies have formed partnerships with Transportation Network Companies (TNCs) such as Uber and Lyft. Proponents of these collaborations emphasize their potential to expand the reach of public transportation systems, while skeptics caution that transit agencies should not divert resources from core bus and rail networks, and should not rely upon drivers who lack basic health and employment benefits.

This thesis contributes to the growing body of research around TNC partnerships by focusing on one important dimension: the degree to which these partnerships meet the standards of federal civil rights law. Laws such as Title VI of the Civil Rights Act of 1964 require transit agencies to ensure that the benefits and burdens of their services are distributed equally. And yet despite the importance of these laws, little is known about how transit agencies are meeting their civil rights obligations in the context of partnerships with TNCs. To shed light on this question, I reviewed the existing research on TNC partnerships and conducted eighteen interviews with officials from transit agencies, advocacy organizations, and the Federal Transit Administration.

I have found that the level of attention and regulatory innovation has varied across civil rights regimes. Many transit agencies have devoted substantial attention to the Americans with Disabilities Act, finding new ways to use these partnerships to improve mobility for people with disabilities. And yet, four years into this series of partnerships, there has been much less innovation with regard to Title VI and the Executive Order on Environmental Justice, which together prohibit discrimination on the basis of race and income. With a few limited exceptions, transit agencies have generally not taken the steps needed to ensure that TNC partnerships comply with these bedrock civil rights provisions. This is an area where advocates, regulators, and transit agencies should devote greater attention. If these partnerships are to play a role in the future of public transportation—as some advocates believe they should—they must satisfy the basic legal and ethical imperative of providing service transparently and equitably.

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Introduction

In recent years, more than thirty public agencies have partnered with ride-hailing companies such as Uber, Lyft, and Via.[1] According to the proponents of such partnerships, these collaborations have the potential to improve mobility and expand the reach of public transportation systems. Among other initiatives, transit agencies have used these partnerships to address what's known as the "last mile" problem in public transportation—the difficulty in getting riders from a central train or bus line to their final destination[2]—as well as to improve door-to-door paratransit service for riders with disabilities.[3]

While the Federal Transit Administration (FTA) has encouraged transit agencies to partner with private ride-hailing companies, it has also made clear that these partnerships must comply with the federal laws and regulations that govern public transportation.[4] These requirements include health and safety regulations (such as mandatory drug and alcohol testing for drivers),[5] as well as civil rights laws, which require transit agencies to ensure that the benefits and burdens of their services are distributed equally. Historically, laws such as Title VI of the Civil Rights Act of 1964 and the Americans with Disabilities Act have played a key role in movements to break down disparities in public transportation funding,[6] and to compel transit

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[1] *See* Joseph P. Schwieterman et al., *Partners in Transit: A Review of Partnerships between Transportation Network Companies and Public Agencies in the United States*, Chaddick Institute for Metropolitan Development (2018), https://las.depaul.edu/centers-and-institutes/chaddick-institute-for-metropolitan-development/research-and-publications/Documents/Partners%20in%20Transit_Live1.pdf.

[2] *See generally* Hai Wang, *Design and Operation of a Last Mile Transportation System* (2015), https://dspace.mit.edu/bitstream/handle/1721.1/98568/920858352-MIT.pdf?sequence=1 (describing the last mile problem in transportation).

[3] Section II.B.iv provides examples of paratransit partnerships.

[4] *See, e.g.*, *Dear Colleague Letter on Partnerships with Transportation Network Companies*, U.S. Dep't of Transp., Dec. 6, 2016, https://www.transit.dot.gov/sites/fta.dot.gov/files/Dear%20Colleague%20Letter%20re%20Shared%20Mobility.pdf [hereinafter "FTA Dear Colleague Letter"] (describing civil rights statutes that apply to TNC partnerships).

[5] 49 U.S.C. § 5331 (2018).

[6] *See* Robert D. Bullard, *Addressing Urban Transportation Equity in the United States*, 31 Fordham Urban Law Journal 1183, 1193-96 (2003).

agencies to make vehicles and stations accessible to people with disabilities.[7] Beyond litigation, civil rights laws advance the goal of promoting inclusive public transportation systems in diverse ways. For example, the requirements to engage in inclusive planning with low-income riders or to proactively measure disparities in transportation based on race and ethnicity oblige transit agencies to affirmatively track and alleviate inequities in public transportation.

This combination of planning requirements, conditional funding, administrative oversight, and (at times) litigation, forms what Olatunde Johnson has termed the "equality directive" of modern civil rights law: the imperative for public agencies to proactively make their services more inclusive.[8] To do so, the Federal Transit Administration has issued a series of regulations and guidance documents,[9] and public transportation agencies have developed methods of planning and analysis that are meant to uncover and address disparities in the funding, access, and quality of public transportation.[10] When effective, these methods of planning and oversight complement political organizing by providing information and accountability that bolster public dialogues about inequality in transportation and that serve as counterweights to the political pressures to steer transportation resources toward more politically connected groups.[11]

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[7] *See, e.g.*, *History and Impact of MBTA/BCIL Settlement Agreement*, Massachusetts Bay Transportation Authority, https://www.mbta.com/accessibility/history (describing the history of private lawsuits against the MBTA to improve accessibility).

[8] Olatunde C.A. Johnson, *Beyond the Private Attorney General: Equality Directives in American Law*, 87 N.Y.U. Law Review 1339 (2012).

[9] *See, e.g.*, Federal Transit Administration, Circular 4702.1B, Title VI Requirements and Guidelines for Federal Transit Administration Recipients (2012), https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Title_VI_FINAL.pdf [hereinafter FTA Title VI Circular].

[10] Alex Karner & Deb Niemeier, *Civil Rights Guidance and Equity Analysis Methods for Regional Transportation Plans: A Critical Review of Literature and Practice*, 33 Journal of Transportation Geography 126 (2013) (describing methods to comply with civil rights statutes).

[11] Part I discusses in greater depth the strengths and limitations of the civil rights analyses used in transportation.

Partnerships between transit agencies and ride-hailing companies pose several challenges to the conventional methods of applying civil rights law in public transportation. The challenges are both practical—Uber and Lyft closely guard their data—as well as conceptual, involving difficult questions that civil rights law has long struggled to answer. How should an agency compare civil rights outcomes across different modes of transportation? If an agency replaces a poor-quality bus route with a high-quality (but more expensive) ride-hailing service, does that help or hurt civil rights outcomes? And how should regulators enforce civil rights in the context of dynamic algorithms that constantly change prices and services?

This thesis seeks to assess the current state of civil rights in the context of partnerships between transit agencies and ride-hailing companies, also known as Transportation Network Companies, or TNCs. Existing research into these partnerships has so far documented (among other helpful contributions) the diverse forms and objectives of these partnerships,[12] the challenges involved in crafting data-sharing agreements between public agencies and private ride-hailing partners,[13] and the methods transit agencies use to get the word out about this new mode of public transportation.[14] In this thesis, I draw on this body of work, supplemented by original interviews with officials at transit agencies, to examine how public transportation agencies are interpreting and applying civil rights laws in their partnerships with TNCs.

At the outset, we can imagine at least two plausible hypotheses. On the one hand, transit agencies may be using these partnerships to identify and address barriers to equality in new and innovative ways. Transit agencies may, for example, be advancing equity by leveraging new

[12] Schwieterman et al., *supra* n.1.
[13] Terra Curtis et al., *Partnerships Between Transit Agencies and Transportation Network Companies*, Transit Cooperative Research Program Report 204 (2019), https://www.nap.edu/catalog/25425/partnerships-between-transit-agencies-and-transportation-network-companies.
[14] Todd Hansen et. al, *Existing Transportation Network Companies as a Part of Basic Mobility*, Texas A&M Transportation Institute White Paper (Nov. 26, 2018), http://groups.tti.tamu.edu/transit-mobility/files/2019/04/TTI-Existing-TNCs-Used-as-a-Part-of-Basic-Mobility-White-Paper.pdf.

technologies to provide transportation options in previously underserved areas. At the same time, the abundant quantities of data that TNCs collect could make it easier for transit agencies to uncover disparities in ridership usage. When coupled with the experimental nature of these programs, these new forms of data may shorten the time it takes to find and fix disparities in public transportation, thereby breathing new life into federal civil rights law.

A second and less optimistic hypothesis is also plausible. In pursuit of novel partnerships with private ride-hailing providers, transit agencies may have deprioritized civil rights protections. Agencies may lack the incentives, information, and/or capabilities to measure and respond to potential disparities in use. Likewise, the Federal Transit Administration, which has provided funding for some of these partnerships and shaped many more through its public guidance documents, may have taken its foot off the gas with respect to civil rights, removing the pressure on transit agencies to innovate not only with respect to forming new collaborations with private enterprises, but also with respect to demonstrating compliance with fundamental civil rights laws. If such a trend started during the Obama Administration—when these partnerships were first being formed—it may very well have accelerated under the Trump Administration, given the current administration's known antipathy towards civil rights protections.

To test these two hypotheses, I canvassed the existing research on partnerships with TNCs and conducted eighteen semi-structured interviews with officials at transit agencies, advocacy organizations, and the Federal Transit Administration. These interviews produced an initial result that is perhaps surprising: the degree of attention and regulatory innovation has not been constant across civil rights regimes. By and large, transit agencies have devoted significantly more energy to understanding and tackling issues related to the Americans with Disabilities Act than to Title VI of the Civil Rights Act of 1964 or the Executive Order on

Environmental Justice (the EJ Order), which together prohibit discrimination on the basis of race and income.

To understand this finding, it is necessary to distinguish between two related but distinct concepts: service design and service evaluation. Partnerships with TNCs provide opportunities to innovate with respect both to the method of providing transportation (service design) as well as to the means of assessing those services (service evaluation). Both aspects are critical to the fulfillment of civil rights law. Substantively designing services to enhance equity and inclusion goes to the core of civil rights law. At the same time, rigorous methods of service evaluation are needed to both identify potential disparities and demonstrate compliance with civil rights laws.

From my interviews, I found that the suite of recent TNC partnerships, some now entering their fourth year, has genuinely advanced the state of regulation with respect to the Americans with Disabilities Act. This holds true when considering both service design and service evaluation. For example, the City of Santa Monica has doubled the number of elderly and disabled riders it serves by partnering with Lyft.[15] Through this partnership Santa Monica has not only reached more riders, it has also improved its paratransit offering, replacing a strained and difficult-to-use dial-a-ride service with a partnership that allows users to schedule rides minutes, rather than days, in advance. Another agency—the Massachusetts Bay Transportation Authority (MBTA)—has broken ground on a new form of incentive regulation aimed at increasing the number of wheelchair-accessible vehicles in TNC fleets, a perennial problem in the ride-hailing industry. Using information provided from TNCs, the MBTA monitors the number of wheelchair-accessible vehicles (WAVs) that each TNC operates, and then pays them a bonus for each hour that a WAV is available to be called upon. Whether or not this incentive program

[15] *See* Section III.C.

proves to be a winner in the long run, it is an example of a transit agency integrating service design and service evaluation in a novel fashion to help reduce disparities in the quality and availability of public transportation for people with disabilities.

And yet, four years into this series of partnerships, there has been much less innovation with regard to two other major civil rights provisions: Title VI of the Civil Rights Act of 1964 and President Clinton's Executive Order on Environmental Justice. In my interviews, most of the conversations concerning Title VI and the EJ Order centered around two particular safeguards that agencies have implemented: setting up call centers so that riders who don't own a smartphone can still hail a ride, and providing a method of payment that doesn't rely upon a credit card or debit card. Beyond these limited measures,[16] transit agencies have taken few actions (particularly relative to the ADA) to identify or correct for disparities in access, pricing, or quality of services that may negatively affect riders on the basis of income or ethnicity—or alternatively, on the basis on geography in ways that may overlap with ethnicity and income, given the levels of economic and racial segregation in America.[17]

What explains the divergent outcomes for these different areas of civil rights law? In certain cases, limited staffing and resources have caused agencies to prioritize some challenges—such as improving the accessibility of TNC services—over others. However, many of these pilot programs are well-staffed and well-financed, and thus limited time and capacity only tell part of the story.

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[16] As discussed in Section III.E, *infra*, these two measures may be meaningful, though call-in centers have not always been used even after transit agencies have gone through the effort of setting them up. Moreover, these two safeguards do not exhaust the potential Title VI and EJ issues involved in these partnerships. *See* Section III.A, *infra*.

[17] *See* Jake Intrator et al., *Segregation by Race and Income in the United* States, 60 Social Science Research 45 (2016) (collecting research related to the "high degree of [geographic] segmentation on the basis of race and class" in America). There a couple notable exceptions where transit agencies have attempted to design programs in a manner that targets known barriers to public transportation based on income, geography, or both. These examples are discussed in Part II.B, *infra*.

More important, in many respects, have been a series of decisions and attitudes both inside and outside transit agencies that have directed attention towards accessibility issues—a welcome development—while unfortunately minimizing the importance of Title VI and environmental justice. For example, in its initial public guidance on civil rights and TNC partnerships, the Federal Transit Administration (FTA) laid out two very different sets of expectations for what transit agencies must do to comply with the Americans with Disabilities Act on the one hand and Title VI and the EJ Order on the other.[18] I argue that the FTA's focus on equal outcomes for the ADA, versus a limited set of inputs for Title VI and the EJ Order, had significant implications for the subsequent differences in regulatory innovation. Additional factors include effective organizing by disability rights advocates who have raised the salience of disability issues and a weakening of expectations for transit agencies to collect, assess, and publicize equity impact analyses, a mainstay of Title VI and environmental justice for fixed-route public transportation.

The relative inattention to Title VI and the EJ Order should be concerning for both civil rights advocates and the transportation community as a whole. While accurate data on TNC ridership is difficult to come by, existing research indicates that regular TNC riders tend to be wealthier, younger, and more-highly educated than the average American.[19] Whether partnerships with public transportation agencies will alter these trends is a key question, but as they stand, the demographics of regular TNC ridership present some cause for concern. In addition, transit agencies themselves are making critical decisions—such as where to draw "geofences" for these partnerships—that have implications for racial and economic justice.

[18] FTA Dear Colleague Letter, *supra* n.4.
[19] *See* Bruce Schaller, *The New Automobility: Lyft, Uber and the Future of American Cities*, Schaller Consulting (July 25, 2018), http://www.schallerconsult.com/rideservices/automobility.pdf.

Finally, the lack of attention to Title VI and the EJ Order represents a significant missed opportunity. As the innovations with respect to the ADA demonstrate, transit agencies are capable of using these new technologies and partnerships to identify and redress inequality in new and helpful ways. Applying this same level of attention and innovation to Title VI and the EJ Order could enhance the impact of these two important civil rights laws.

This thesis proceeds as follows. Parts I and II set the stage, providing background information on civil rights laws in public transportation and on the recent slate of partnerships between transit agencies and TNCs. Part III presents the bulk of my research and interviews concerning the ADA, Title VI, and the EJ Order, through case studies highlighting partnerships from different transit agencies. Part IV explores some of the reasons that might explain why there have been different levels of attention and regulatory innovation across civil rights regimes. I conclude by recommending that the transportation planning community devote greater attention to the need to measure and redress potential disparities in these partnerships that may exist on the basis of race, income, and geography.

I. The Legal Landscape of Civil Rights in Public Transportation

This section describes the role that civil rights laws play in addressing inequalities in transportation, covering both the important role that civil rights laws can play, as well as some of the limitations in how civil rights laws are currently interpreted and enforced in transportation.

A. Mobility and Inequality

Transportation networks connect people to the places and opportunities they need to flourish. It is therefore not surprising that numerous studies have highlighted the importance of

high-quality transportation options to measures of wellness such as health and economic security.[20] The flipside is that disparities in transportation are also linked to disparities in employment and health outcomes. For example, a 2014 study from the Urban Institute found that lower rates of automobile ownership and worse access to public transportation are both associated with higher rates of unemployment.[21] Similarly, a study from the Rudin Center found that economic opportunities and unemployment were worse in neighborhoods without high-quality public transportation.[22]

Even in transit-rich cities like New York, disparities in access to public transportation can be severe, and often work to the detriment of low-income residents. For example, a 2013 study by the Pratt Center for Community Development found that in New York City, over 758,000 residents had to commute more than an hour in each direction to get to and from work.[23] Of these quarter-million residents, nearly two-thirds were workers who were commuting to jobs that paid less than $35,000 a year.[24]

Inequality in transportation has been shaped by America's racialized politics concerning land use development and infrastructure investments. Historically, architects of urban highways sought to use the construction of the interstate highway system both to connect city centers to newly flourishing suburban communities and as a means of clearing neighborhoods that were

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[20] *See, e.g.*, Michael J. Widener and Marianne Hatzopoulou, *Contextualizing Research on Transportation and Health: A Systems Perspective*, Journal of Transportation & Health (2016), https://www.sciencedirect.com/science/article/pii/S2214140516000104 (collecting studies linking transportation to health).
[21] Rolf Pendall et al., *Driving to Opportunity: Understanding the Links Among Transportation Access, Residential Outcomes, and Economic Opportunity for Housing Voucher Recipients*, Urban Institute (2014), https://www.urban.org/research/publication/driving-opportunity-understanding-links-among-transportation-access-residential-outcomes-and-economic-opportunity-housing-voucher-recipients/view/full_report.
[22] Sarah M. Kaufman et al., *Mobility, Economic Opportunity and New York City Neighborhoods*, NYU Wagner Rudin Center (2015), https://wagner.nyu.edu/files/faculty/publications/JobAccessNov2015.pdf.
[23] Pratt Center for Community Development, *Mobility and Equity for New York's Transit-Starved Neighborhoods: The Case for Full-Featured Bus Rapid Transit* (2013), https://prattcenter.net/sites/default/files/pratt_rockefeller_brt_nyc_whitepaper_for_web.pdf.
[24] *Id*. at 1.

viewed as "blighted." Often, these neighborhoods were home to communities of color and immigrant communities, who were forced out of their homes to make way for new infrastructure projects.[25] Today, decisions about how to allocate transportation funding, such as redirecting funds away from public transportation and toward highways, continue to disproportionately and adversely affect African-Americans.[26]

Transportation inequality remains a crucial concern for people with disabilities. While there has been some progress in recent years, vehicles, sidewalks, and transit stations continue to be designed in ways that exclude people with disabilities.[27] Moreover, transportation problems for people with disabilities are often most acute for people with low incomes. For example, the 2004 National Organization on Disability/Harris Survey found that almost two-thirds of survey respondents who report having major transportation problems also reported incomes of less than $35,000 a year.[28]

Many of the historic problems of inequality in transportation—of class and racial biases, or systems designed without care for people with disabilities—often carry through to new transportation technologies. The rollout of bikeshare systems provides a prime example. According to data from the American Community Survey, low-income workers are more likely

[25] *See* Kevin M. Kruse, *What Does a Traffic Jam in Atlanta Have to Do with Segregation? Quite a Lot.,* N.Y. Times (Aug. 14, 2019), https://www.nytimes.com/interactive/2019/08/14/magazine/traffic-atlanta-segregation.html.
[26] *See, e.g.* NAACP Legal Defense Fund, *Baltimore Residents and Civic Groups File Title VI Complaint with United States Department of Transportation Over Maryland's Discriminatory Decision to Strip Baltimore of Transportation Funding* (Dec. 18, 2015), https://www.naacpldf.org/press-release/baltimore-residents-and-civic-groups-file-title-vi-complaint-with-united-states-department-of-transportation-over-marylands-discriminatory-decision-to-strip-baltimore-of-transportation-fundin ("Shifting resources from public transit in Baltimore to highways and bridges outside of the city has a discriminatory impact on African-American residents.").
[27] *See* Sandra Rosenbloom, *Transportation Patterns and Problems of People with Disabilities* in *The Future of Disability in America* (eds. Marilyn J. Field & Alan M. Jette) (2007), https://www.ncbi.nlm.nih.gov/books/NBK11434/ (describing the continued challenges that riders with disabilities fact in public transportation systems).
[28] *Id*.

to commute to work by bicycle than high-income workers.[29] And yet, many bikeshare systems, such as Citi Bike in New York and Capital Bikeshare in Washington, D.C., initially located their facilities in higher-income areas, leading to a dearth of low-income riders.[30] Even as companies have expanded their networks, barriers to use for low-income residents—such as the risk of being charged the full cost of a bike that goes unreturned—have meant that disparities in bikeshare usage persist, leading one reporter to note that while "the poor bike, the rich bikeshare."[31]

For bikeshare systems, which are often private organizations, these disparities, while problematic, are not always legally actionable. Public transportation agencies, however, operate under the legal requirement that they provide services without discriminating on the basis of race, color, or income. These civil rights laws are the subject of the subsequent sections.

B. Civil Rights as Private Litigation

Civil rights laws are one counterweight to the problems of inequality in transportation. These laws operate both directly as avenues for judicial and administrative oversight, as well as indirectly, serving as important sources of information on inequality and transportation and spurring public attention and dialogue. This section starts with a discussion of the history of civil rights and litigation in public transportation, before moving to the multifaceted world of administrative enforcement of civil rights.

i. Title VI of the Civil Rights Act of 1964

[29] Eric Jaffe, *The Poor Bike, the Riche Bike-Share*, CityLab (Oct. 30, 2015), https://www.citylab.com/transportation/2015/10/the-poor-bike-the-rich-bike-share/413119/.
[30] Joel Rose, *Shifting Gears to Make Bike-Sharing More* Accessible, National Public Radio (Dec. 12, 2013), https://www.npr.org/sections/codeswitch/2013/12/12/243215574/shifting-gears-to-make-bike-sharing-more-accessible.
[31] Jaffe, *supra* n.29.

Historically, Title VI of the Civil Rights Act of 1964 and the Americans with Disabilities Act have played an important role in advancing equality in public transportation. Title VI prohibits recipients of federal funds from discriminating on the basis of race, color, or national origin.[32] The realization of decades of advocacy and organizing, Title VI reflected the idea, expressed by President Kennedy in 1963, that "[s]imple justice requires that public funds, to which all taxpayers of all races, colors and national origins contribute, not be spent on any fashion which encourages, entrenches, subsidizes or results in racial discrimination."[33]

Most public transportation agencies receive financial assistance from the federal government, largely through grants administered by the Federal Transit Administration. As a result, public transportation agencies must ensure that their programs and policies satisfy Title VI's prohibition on discriminating on the basis of race, color, or national origin.[34] Critically, Title VI prohibits both intentional discrimination and also actions which may not have been intended to discriminate, but which nonetheless result in a disparate impact on protected classes.[35]

Title VI applies to transit agencies, as well as to any organizations with which they contract. In the terminology of federal regulations, these organizations become "subrecipients" of federal funds, who must then ensure that their programs operate in a nondiscriminatory fashion.[36]

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[32] 42 U.S.C. § 2000d (2018).
[33] U.S. Department of Justice, *Title VI of the Civil Rights Act of 1964*, https://www.justice.gov/crt/fcs/TitleVI.
[34] FTA Title VI Circular, *supra* n.9.
[35] *See* U.S. Department of Justice, *Title VI Legal Manual, Section VII*, "Proving Discrimination — Disparate Impact", https://www.justice.gov/crt/fcs/T6Manual7.
[36] In its guidance on Title VI from 2012, the FTA explained that: "Importantly, if a subrecipient is not in compliance with Title VI requirements, then the primary recipient is also not in compliance." FTA Title VI Circular ch. III-10. *See also* 49 C.F.R. § 21.9(b) (2019) ("In the case in which a primary recipient extends Federal financial assistance to any other recipient, such other recipient shall also submit such compliance reports to the primary recipient as may be necessary to enable the primary recipient to carry out its obligations under this part.").

In the 1980s through the early 2000s, community groups and legal organizations brought private lawsuits under Title VI challenging different forms of discrimination in public transportation. One of the highest-profile actions was a lawsuit brought by the Los Angeles Bus Riders Union against the LA County Metropolitan Transportation Authority (LA MTA).[37] In 1994, the LA MTA proposed increasing bus fares while simultaneously cutting bus service. And yet at the same time, the LA MTA also proposed spending $123 million to expand the city's light rail system.[38] In response, the LA Bus Riders Union sued the MTA, arguing that the decision to cut bus service while building new rail lines exacerbated the MTA's pattern of favoring the rail system—which disproportionately served white commuters—while underinvesting in the bus system, where the majority of riders were people of color.[39]

After a judge issued a temporary restraining order to stop the fare hikes from going into effect, the MTA and the Bus Riders Union agreed to a settlement in which the MTA reversed the fare hikes and committed to reinvesting in the bus system to reduce overcrowding.[40] When the MTA failed to live up to the terms of the Consent Decree, the Bus Riders Union returned to court, winning an order from the federal district court judge that required the MTA to "immediately acquire 248 additional buses to reduce passenger overcrowding even if that meant diverting funds from other transportation services under MTA's jurisdiction."[41]

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[37] *See* Labor/Cmty. Strategy Ctr. v. L.A. Cnty. Metro. Transp. Auth., 263 F.3d 1041, 1043-44 (9th Cir. 2001) (describing the original 1994 complaint).
[38] *See generally* Richard A. Marcantonia & Angelica K. Jongco, *From the Back of the Bus to the End of the Line: The Discriminatory Funding of Public Transit in California*, American Bar Association Human Rights Magazine (2007), https://www.americanbar.org/groups/crsj/publications/human_rights_magazine_home/human_rights_vol34_2007/summer2007/hr_summer07_marjon/ (describing the LA MTA's proposal).
[39] *Id*.
[40] *Id*.
[41] Labor/Cmty. Strategy Ctr., 263 F.3d at 1043.

The Bus Riders Union showcased the potential of Title VI as a tool to challenge disparities in funding across different modes of transportation. However, efforts to replicate the success of the Bus Riders Union's lawsuit proved difficult. Similar lawsuits challenging disparities in funding or the amount of subsidies provided to users of different modes of transportation have largely been unsuccessful.[42]

For example, in one lawsuit, advocates representing bus riders challenged a decision to increase fares on New York City buses, arguing that bus riders already paid a much higher share of the cost of their rides than users of the commuter rail system.[43] The plaintiffs argued that the decision by the New York Metropolitan Transit Authority to allocate higher levels of subsidies to the whiter, suburban communities violated Title VI. In rejecting the plaintiffs' claim, the Second Circuit expressed doubt that the amount of subsidy per passenger was the right metric by which to evaluate a Title VI discrimination claim. In addition, the Second Circuit seemed reluctant to second guess the MTA's determination that subsidizing commuter rail services also provided benefits to bus riders by removing additional cars from the road, thus improving bus speeds. The New York case shows that as a judicially-enforced remedy, Title VI has encountered problems, particularly when judges feel that they must wade into policy tradeoffs that they may be ill-equipped to decide.

The series of private lawsuits under Title VI over the disparate impacts of public transportation decisions largely came to an end with the Supreme Court's 2001 decision in *Alexander v. Sandoval*.[44] In a 5-4 decision authored by Justice Scalia, the Court held that Title VI only gives private parties the right to challenge intentional discrimination in court, and does not

[42] *See, e.g.* Munguia v. Illinois, No. 10 C 0055, 2010 WL 3172740, at *9—11 (N.D. Ill. Aug. 11, 2010).
[43] N.Y. Urban League, Inc. v. New York, 71 F.3d 1031, 1036 (2d Cir. 1995).
[44] 532 U.S. 275 (2001).

grant a private right of action for decisions that have an unintentional disparate impact on the basis of race, color, or national origin. Since *Sandoval*, civil rights advocates and progressives in Congress have introduced bills to overturn the Supreme Court's decision and restore a private right of action to Title VI.[45] However, no such legislative fix has yet become law. As a result, while transit agencies must continue to abide by Title VI's prohibition on unintentional discrimination, enforcement of this provision rests solely with the Federal Transit Administration.[46]

ii. The Americans with Disabilities Act

Unlike disparate impact litigation under Title VI, private litigation under the Americans with Disabilities Act (ADA) continues to play a major role in public transportation. The roots of the modern-day ADA lie in the Rehabilitation Act of 1973, which required recipients of federal funds to incorporate accessibility in their services. These protections were reiterated and expanded in 1990, when Congress passed the Americans with Disabilities Act.

Private lawsuits have been integral in motivating transit operators to make their systems accessible. For example, in 2002, Greater Boston Legal Services filed a class action lawsuit against the Massachusetts Bay Transportation Authority (MBTA). Among other claims, the lawsuit alleged that the MBTA's failure to install and maintain working elevators at key train stations violated the ADA's mandate that transit stations be "readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs."[47] The lawsuit resulted in a settlement, whereby the MBTA committed to investing hundreds of millions of dollars to

[45] *See, e.g.*, The Equity and Inclusion Enforcement Act, https://edlabor.house.gov/imo/media/doc/2017-05-09%20EIEA%20Updated%20Fact%20Sheet.pdf.
[46] *See* Part I.B, *infra*.
[47] 42 U.S.C. § 12147(b)(2).

upgrade its train stations.[48] Under the terms of the settlement, the MBTA continues to work with disability advocates to improve the accessibility of the region's transit system.[49]

The ADA is more expansive than Title VI, which applies only to recipients of federal funds. By contrast, Title III of the Americans with Disabilities Act covers private businesses that operate as public accommodations, including "private entit[ies] that [are] primarily engaged in the business of transporting people and whose operations affect commerce."[50] Utilizing this provision, disability rights advocates have in recent years brought a series of class-action lawsuits against Uber and Lyft. Among other ADA problems, the lawsuits have targeted the lack of wheelchair accessible vehicles in Uber and Lyft's fleets.

The two companies have defended these lawsuits by arguing that the Americans with Disabilities Act doesn't apply to them, because they are not actually "transportation companies" within the meaning of the ADA. Instead, the ride-hailing companies contend that they are technology companies that help to match drivers and riders but do not themselves provide transportation services. This argument is shaky, but so far, the court cases that would definitely resolve this question are still ongoing. Consequently, improving accessibility in TNCs remains mostly an issue for administrative agencies and state legislatures to tackle.

C. Civil Rights as Administrative Imperative

While private litigation to enforce the ADA remains a potent tool, after *Alexander v. Sandoval*, much of the activity around Title VI has shifted to the administrative realm. As

[48] *MBTA Lawsuit and Access Information*, Boston Center for Independent Living, https://bostoncil.org/advocacy/mbta-lawsuit-info/.
[49] *See* Sean Philip Cotter, *T, Disability Advocates Ink Changes to Major Settlement*, Boston Herald (Dec. 6, 2018), https://www.bostonherald.com/2018/12/05/t-disability-advocates-ink-changes-to-major-settlement/.
[50] 42 U.S.C. § 12184(a) (2018).

Olatunde Johnson has noted, this shift did not strip Title VI of its meaning.[51] Instead, administrative regulations, guidance, and funding continue to be shaped by the basic statutory obligation for agencies to provide service in a nondiscriminatory fashion. This section describes the continued life of civil rights laws within public transportation planning.

i. Expanding Federal Protections to Include Environmental Justice

In the 1980s, the environmental justice movement cast a stark light on the systematic discrimination that Native communities, communities of color, and low-income communities faced in bearing a disproportionate share of environmental harms.[52] Out of this movement came Executive Order 12,898, entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," which was issued by President Clinton in 1994.[53] Developed in concert with environmental justice organizers, the Environmental Justice Order (EJ Order) directed federal agencies to identify and address discriminatory outcomes that low-income communities and communities of color face in the distribution of environmental harms and negative public health effects. The Environmental Justice Order also highlighted the importance of participatory justice, requiring federal agencies to improve public engagement as a strategy to reduce environmental racism.[54]

ii. Analyzing Disparate Impacts/Disproportionate Burdens

The Federal Transit Administration has implemented the Executive Order on Environmental Justice by requiring transit agencies to incorporate principles of environmental justice in early planning activities, as well as by requiring transit agencies to evaluate service

[51] Johnson, *supra* n.8.
[52] *See generally* Alice Kaswan, *Environmental Justice and Environmental Law*, 24 Fordham Environmental Law Review 149 (2017).
[53] Exec. Order No. 12,898, 3 C.F.R. § 859 (1995).
[54] *Id*. at Section 5-5.

changes to determine if they may have disproportionate and adverse effects on low-income communities and communities of color.[55] The FTA formalized these requirements in 2007, updating them again in 2012 to provide more guidance about what agencies need to do in order to comply with both Title VI and the Executive Order on Environmental Justice.

While all transit providers must comply with both civil rights provisions, the FTA has chosen to institute separate regulatory regimes based on whether the agency is a large or small provider of public transportation, as well as whether the agency operates fixed-route services or on-demand services.[56]

Large transit agencies—which the FTA defines as agencies that operate at least 50 fixed-route vehicles in metropolitan areas with a population of at least 200,000—must create system-wide Title VI and Environmental Justice programs every three years, and must document the public planning process used to create these policies. Before implementing a major change to either service or fares, large transit agencies must conduct what's known as an equity analysis to determine whether the change would disproportionately and adversely affect low-income riders or riders of color.[57]

The FTA's regulations permit some latitude in how agencies conduct these analyses, provided that they are consistent with the Title VI program that an agency creates and updates every three years. For example, to evaluate the impact of service changes on minority and low-income communities, transit agencies may employ either direct ridership data—usually in the form of ridership surveys—or population data derived from the U.S. Census or American

[55] See Federal Transit Administration, *Environmental Justice Policy Guidance for Federal Transit Administration Recipients* (2012), http:// www.fta.dot.gov/legislation_law/12349_14740.html.
[56] FTA Title VI Circular, *supra* n.9.
[57] *Id*. at ch. IV-7.

Community Survey that uses geography as a proxy for the populations who will be affected by service changes.[58]

While not perfect, these impact analyses serve several important functions. Collecting and analyzing information on the distributional impacts of fare and service changes not only obliges agencies to engage in critical self-assessment, it also serves as an important springboard for public accountability and a focal point for organizing. Moreover, the failure to properly conduct a disparate impact analysis can trigger enforcement actions from the Federal Transit Administration, leading to either a loss of funds or a revamping of projects to spread the benefits and burdens of service changes more equitably across an agency's customers.

The case of the Oakland Airport connector provides one example. In the early 2000s, Bay Area Rapid Transit (BART), one of the transit providers in the San Francisco Bay Area, proposed constructing a 3.2 mile elevated monorail to connect BART's Coliseum Station in Oakland with the Oakland Airport.[59] The $500 million rail project would have crossed, but not served, several neighborhoods largely made up of people of color in order to link BART to the Oakland Airport.

When considering whether to build the monorail, BART had on the table a counter-proposal to upgrade the bus service that operated between Coliseum Station and the airport. The agency's own analysis showed that this option would be more cost effective than building the expensive monorail line. Many advocates also preferred this option because the bus service would better serve local neighborhoods and would be been more affordable for low-income residents.

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[58] *Id*. at ch. IV-14.
[59] *See* Yonah Freemark, *FTA Kills Plan to Use Stimulus Funds for Oakland Airport Connector*, The Transport Politic (Feb. 17, 2010), https://www.thetransportpolitic.com/2010/02/17/fta-kills-plan-to-use-stimulus-funds-for-oakland-airport-connector/ (describing the project).

After BART chose to go ahead with the more expensive monorail project, a coalition of local faith-based and civic organizations filed a formal complaint with the Federal Transit Administration, arguing that BART had violated Title VI and the Executive Order on Environmental Justice by failing to properly "assess[] the effect of the proposed fare or service change on minority and low income populations."[60] In response, the FTA instituted a formal Title VI investigation and eventually determined that the complaint was "true . . . [and] well founded."[61] Because of BART's failure to conduct an equity analysis, the FTA ultimately revoked $70 million in funding that the project would have received from the American Recovery and Reinvestment Act, the national stimulus package passed in the wake of the Great Recession.[62] Instead, the funds were redistributed to other transit projects in the Bay Area, including investments in the Alameda County bus system.[63] The case highlights the importance of equity analyses within the FTA's approach to enforcing civil rights.

D. Limitations of the Current Federal Civil Rights Regime

While the administrative enforcement of civil rights in public transportation by the Federal Transit Administration opens up possibilities that a purely court-centric model does not provide, there are significant limitations in how the FTA conceives of and enforces civil rights. Within the legal academic community, the impact assessments that the Federal Transit Administration requires are often held up as an example of a thoughtful and pro-active strategy

[60] Complaint Under Title VI of the Civil Rights Act of 1964 and Executive Order 12898, Urban Habitat v. Bay Area Rapid Transit District (Fed. Transit Admin. Sept. 1, 2009), https://www.publicadvocates.org/wp-content/uploads/fta_titlevi_complaint_09109final-1.pdf.
[61] FTA Letter to the Metropolitan Transportation Commission (Feb 12, 2010), https://mtc.ca.gov/sites/default/files/OAC_2-12-10_memo.pdf.
[62] *BART/Oakland Airport Connector (OAC)*, Public Advocates, https://www.publicadvocates.org/our-work/transportation-justice-issues/bartoakland-airport-connector-oac/.
[63] *Id*.

to address discrimination.[64] While I share the view that impact assessments can play an important role in fostering inclusive transportation planning, these analyses as currently executed have their own drawbacks.

To begin with, while the FTA requires large transit agencies to conduct an impact analysis before instituting a major service change, the FTA's enforcement record can at times give the impression that the FTA will accept any analysis, even ones that are deeply flawed.

One prominent example involves the MBTA's 2015 decision to cancel its Late-Night Service. Facing political and fiscal pressures, the MBTA decided to eliminate a two-year old program under which the MBTA extended its hours of operation on key bus and rail lines.[65] Initially, the MBTA sought to cancel the Late Night Service without conducting an equity analysis that could reveal if the service cuts would disproportionately affect low-income riders or riders of color. The MBTA's decision to forego an equity analysis drew a rebuke from the Federal Transit Administration, which instructed the MBTA that eliminating the Late Night Service without conducting an equity analysis would be a violation of Title VI.[66]

The MBTA did subsequently conducted an equity analysis. However, its analysis contained a number of dubious assumptions that skewed the results in favor of finding that the decision to cut the late-night service would not have a disparate impact on riders of color.

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[64] *See, e.g.*, Johnson, *supra* n.8 at 1368; Robin A. Lenhardt, *Localities As Equality Innovators*, 7 Stan. J. C.R. & C.L. 265, 280 (2011).

[65] *See* Complaint Under Title VI of the Civil Rights Act of 1964, Executive Order 12898, Executive Order 5610.2(a), and Federal Transit Circular 4702.1A, Conservation Law Foundation. v. MBTA (Fed. Transit Admin. July 26, 2016), https://www.clf.org/wp-content/uploads/2016/07/FTA-Complaint-on-MBTA-Late-Night-Service.pdf (detailing the history of the Late-Night Service).

[66] In a public letter to the MBTA, FTA's Associate Administrator for the Office of Civil Rights explained that "eliminating an hour and a half of service on ten bus routes and all subway lines clearly meets MBTA's current major service change threshold, and, therefore, a service equity analysis must be conducted." *See* Nicole Dunga, *US Faults MBTA for Ending Late-Night Ride Service*, Boston Globe (Mar. 4, 2016), https://www.bostonglobe.com/metro/2016/03/04/mbta-failed-consider-impact-cutting-late-service-minorities-and-low-income-residents-says-federal-agency/psMKdn0RCwO8mi6ajAMr6N/story.html (citing the FTA's letter).

For example, the MBTA had at its disposal two possible data sources that it could use in its analysis: a ridership survey that had been conducted some years earlier and data from the U.S. Census, which the MBTA could use as a proxy for the populations that would be affected by a service change. The MBTA conducted two separate impact analyses, one with each set of data. Both analyses showed that cancelling Late-Night Service would disproportionately and negatively affect low-income riders and riders of color. However, the analysis conducted with data from the U.S. Census showed that cancelling late-night service would affect minority riders and low-income riders at a relatively low rate, disadvantaging those riders at a rate that was 11% and 5% higher than would be expected if the service cut was truly equitable.[67] By contrast, the analysis conducted using the ridership survey data showed that low-income riders would be affected at a rate that was 55% higher than if the service cut were affecting low-income and non-low-income riders equally.

As part of the Title VI process, the FTA grants agencies significant discretion at several stages in the planning process. It lets them choose, for example, whether to use Census data or ridership survey data as part of their equity analyses. It also lets agencies define for themselves what level of disparities constitute a legally significant "disparate impact." Some agencies, such as the New York MTA, have adopted disparate impact policies that define a disparate impact as any statistically significant difference between minority and non-minority riders.[68] However, the MBTA's Title VI policy states that the MBTA can make service cuts that disproportionately affect minority riders, as long as the rate at which minority riders are affected isn't more than 20% greater than their average representation in the MBTA's ridership.

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[67] *MBTA Late-Night Service Equity Analysis*, MBTA, https://old.mbta.com/uploadedfiles/About_the_T/Board_Meetings/LateNightEquity031616.pdf.
[68] *See* MTA New York City Transit and MTA Bus Company System-wide Service Standards, http://web.mta.info/mta/compliance/titlevi-subway-bus-service.html.

The MBTA capitalized on the discretion given to it by the FTA to proceed with its decision to cancel its Late-Night Service. First, the MBTA discarded the analysis that relied on ridership survey data, arguing that demographic changes between 2008 (when the survey was conducted) and 2015 rendered the survey outdated. It then invoked the 20% threshold in its Disparate Impact Policy to argue that although the analysis of U.S. Census data showed that minority residents would be disproportionately affected by the service cut, the statistical difference was only a disparity of 11%, and thus was not legally actionable.

While these decisions were questionable, they are permitted under the FTA's regulations, even if civil rights advocates might wish that the FTA provided transit agencies with less discretion when conducting an equity analysis, or at least reviewed that discretion with a more critical eye.

However, one assumption that the MBTA made would seem to directly contradict both the FTA's regulations and best practices in transportation planning. The MBTA serves a total of 175 municipalities in the greater Boston area. For its analysis of the U.S. Census data, the MBTA made the assumption that if a bus or train line ran through any part of a municipality, then *all of the residents* of that municipality would be "affected" by the service cuts, even if most residents of the municipality lived far from the bus or train line in question. This decision would seem to violate the FTA's standards for conducting equity analyses, which direct agencies to use "the smallest geographic area that reasonably has access to the bus or rail stop or station."[69] The FTA's Title VI Circular goes on to state that "passengers will generally walk up to one-quarter mile to a bus stop or one-half mile to a light or heavy rail station, or drive up to three miles to a

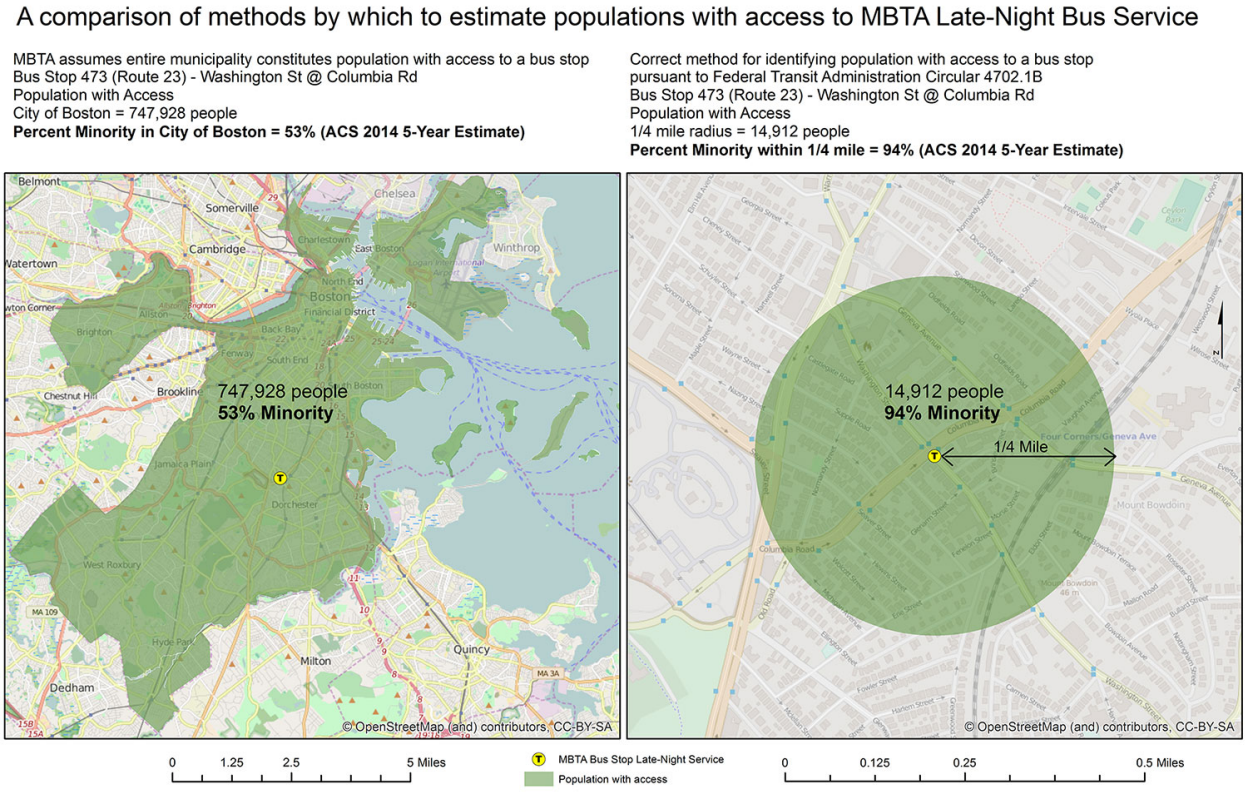
[69] FTA Title VI Circular, *supra* n.9 at ch. IV-14.

commuter rail station. The demographics of the neighborhoods within those distances should be the datasets used."[70]

Citing the FTA's Title VI Circular, a group of transit advocates led by the Conservation Law Foundation filed a formal complaint with the FTA. The advocates argued that the MBTA's disparate impact analysis was flawed because it included people who lived far from the actual bus or train line that would be cut. The advocates contended that the decision to include everyone who lived within a municipality as being "affected" by the service cut, rather than people who lived within a reasonable walking distance, effectively diluted the actual equity impacts of cancelling the Late-Night Service. The advocates didn't stop at a hypothetical concern. Rather, the complaint included an analysis by an independent researcher showing that if the MBTA had conducted its equity analysis using the geographic areas required by the FTA's Title VI Circular, the analysis would have shown that cancelling the Late-Night Service did indeed have a disparate impact on people of color, even using the MBTA's preferred U.S. Census dataset.

[70] *Id*.

Figure 1: Map from the Conservation Law Foundation's Complaint Showing the Differences in Affected Populations Based on Geography[71]



The complaint by the Conservation Law Foundation was a strong one. And yet in spite of the merits of the complaint, the FTA declined to require the MBTA to fix its equity analysis. A month after the advocates filed their complaint, the FTA issued a brief response that omitted any specific discussion of the geographic thresholds that the MBTA used. The letter instead stated at a high level of generality that the FTA had "determined that [the] MBTA's policies were consistent with the [Title VI] Circular" and thus the FTA was "closing [the] complaint and taking no further action."[72]

[71] Kathleen Nay, MBTA Fails Its Low-Income and Riders of Color, Conservation Law Foundation (July 27, 2016), https://www.clf.org/blog/mbta-fails-low-income-riders-color/.
[72] Letter from the FTA to the Conservation Law Foundation (Aug. 26, 2016) (on file with author).

The controversy around Late-Night Service highlights some of the challenges with the Title VI process. As currently implemented by the FTA, transit agencies are given wide latitude to make choices concerning, for example, the data sources they use and the thresholds that qualify as a legally significant disparate impact. Even when the FTA has issued more specific guidance—such as the geographic areas that should be included in an analysis—the FTA hasn't always enforced its own guidance, provided that an agency submit some form of an equity analysis.

Nonetheless, the process of requiring the MBTA to study and publicize information on its cancellation of Late Night Service may have had some small, indirect benefits. The flawed analysis served as a focal point for advocates, and complaints over the unequal impacts of cancelling late night bus service (while preserving commuter rail service) continued to brought up before the MBTA over the coming months.[73] In the fall of 2018, the MBTA instituted a new after-hours bus service pilot, making the service permanent a year later.[74] The new service was the result of years of organizing and campaigning by transit advocates, highlighting that technocratic civil rights analysis cannot replace political mobilization as the primary source of accountability and action for transportation equity. Nonetheless, it is possible that the Title VI process played some role in highlighting the disparate burdens of cancelling the Late-Night Service, even as the FTA failed to prevent the cancellation of the original Late-Night Service.

Beyond the problem of copious discretion (for transit agencies) and under-enforcement by the FTA, there are also a host of other legitimate questions about whether the equity analyses

[73] *See, e.g.*, *Title VI Report*, MBTA, at 2-33 (Oct. 2017), https://cdn.mbta.com/sites/default/files/2017-11/2017-2020-mbta-title-vi-report.pdf ("In this discussion, we were particularly aware of recognizing community concerns raised in response to difficult fiscal and infrastructure decisions that the MBTA had made, including elimination of late-night service.").
[74] *Early Morning and Late Night Bus Service Pilots*, MBTA, https://www.mbta.com/projects/early-morning-and-late-night-bus-service-pilots.

as generally conducted by transit agencies produce useful information. For example, agencies tend to view changes in service in terms of whether bus or train lines that run through "minority areas" are affected more than routes run through "non-minority" areas. But these metrics don't delve into deeper and more substantive questions, such as whether the routes that go through those neighborhoods are actually bringing riders to the places they need to go. A better method would be to measure service changes in terms of a rider's overall ability to access opportunities like places of employment.[75]

Another set of issues concerns the quality of data used to conduct an impact analysis. Ideally, transit agencies would understand service changes in terms of who is actually affected by the service change. However, ridership surveys (which provide the most direct evidence of who actually uses a bus or train line) are time-intensive and expensive to conduct. In lieu of onboard surveys, the FTA's regulations also permit transit agencies to utilize geographic data from the U.S. Census or the American Community Survey as the basis for an equity analysis.[76] However, as the MBTA example shows, using geographic data—rather than onboard surveys—can understate the equity implications of changing service, a fact that was confirmed by Alex Karner and Aaron Golub in their 2015 study of the differences between using Census data and using direct ridership surveys.[77] The authors recommend utilizing onboard surveys wherever possible, but the expense of conducting and updating these surveys can complicate the already difficult task of making service changes.

[75] My thanks to Zak Accuardi for discussing the need to use accessibility-based metrics when evaluating service changes in the Title VI process.
[76] FTA Title VI Circular, *supra* n.9 at ch. IV-17.
[77] Alex Karner & Aaron Golub, *Comparison of Two Common Approaches to Public Transit Service Equity Evaluation*, 2531 Transportation Research Record 170 (2015).

The costs of collecting and analyzing service data may be one reason that the Federal Transit Administration only requires large service providers to conduct formal impact analyses, even though all recipients of federal funding are obligated to comply with Title VI's non-discrimination mandate.[78] In recent years, the technology startup Remix has created a Title VI Engine to assist agencies in conducting impact analyses.[79] The Title VI engine takes standardized datasets—such as OpenStreetMap and the 2013-2017 American Community Survey—and enables transit agencies to quickly determine if a service change will disproportionately affect neighborhoods where residents are predominantly people of color or people with low incomes.

While software tools such as Remix may increase the ease with which transit agencies can conduct impact analyses, they also raise the concern that complex issues about equity and service tradeoffs may be reduced to simple, one-size-fits all analytic exercises that reduce Title VI to a box that needs to be checked, rather than a difficult objective that must be advanced through inclusive planning.

In light of the FTA's under-enforcement of civil rights provisions, and of the myriad difficulties in performing high-quality disparate impact analyses, is there a meaningful role for such analyses in public transportation? Other commentators have rightly noted that the exclusion of environmental justice communities from decision-making in transportation planning is often the primary reason that inequities are reproduced in transportation planning.[80] These problems have deep roots that will not necessarily be changed by making tweaks at the margin to how equity analyses are conducted.

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[78] FTA Title VI Circular, *supra* n.9 at ch. IV-1.
[79] Tamara Lima, *Remix 101: Using the Remix Title VI Engine*, Remix, https://help.remix.com/en/articles/1439215-remix-101-using-the-remix-title-vi-engine.
[80] Alex Karner & Richard A. Marcantonio, *Achieving Transportation Equity: Meaningful Public Involvement to Meet the Needs of Underserved Communities*, Public Works Management & Policy, Nov. 24, 2017.

Nonetheless, like a number of other commentators, I believe that impact analyses can be meaningful. Beyond the formalism of regulatory compliance, these analyses speak to a central issue in transportation planning: understanding who benefits and who is left out from public transportation systems. No technocratic exercise by itself is sufficient to protect civil rights in public transportation. But these analyses do provide helpful information that can deeper our collective understanding of inequality and support both political organizing by advocates and oversight by lawmakers and regulators.

E. State and Local Civil Rights Laws

Civil rights in public transportation has often been viewed through the lens of federal law. However, in recent years a number of researchers have highlighted the importance of civil rights innovations and enforcement at the state and local level.[81] In transportation, state and local governments have long played an important role, through decisions about, for example, the allocation of funding and street space between automobile uses and public transportation, as well as through their oversight of local taxi industries.

Partnerships between transit agencies and TNCs thus straddle two regulatory worlds. While civil rights in public transportation has tended to be regulated primarily at the federal level, ride-hailing companies have so far been overseen principally by state and local bodies. The steps that these state and local legislatures and regulators have taken with respect to TNCs provide examples of civil rights and administrative oversight that could serve as exemplars for transit agencies and other regulators. In addition, the Trump Administration has exhibited a strong antipathy towards civil rights in other areas of law. The administration has, for example,

[81] *See, e.g.*, Lenhardt, *supra* n.64; Olatunde C. Johnson, *The Local Turn; Innovation and Diffusion in Civil Rights Law*, 79 Law and Contemporary Problems 115 (2016).

proposed a rule that would make it significantly harder for plaintiffs to bring disparate impact claims under the Fair Housing Act.[82] So far, the rollback of civil rights protections hasn't extended to transportation. However, the administration has also largely avoided tackling accessibility problems with TNC services, even though it has the legal authority to do so.[83] For that, we must look to state and local regulators and legislatures.

For example, the state of California and the New York City Taxi and Limousine Commission (TLC) have both been active in recent years in creating new regulations to ensure that Uber, Lyft, and other ride-hailing services provide more accessible services. In 2017, the NYC Taxi and Limousine Commission passed a rule requiring that 25% of all trips in for-hire vehicle must be taken in wheelchair-accessible vehicles by 2023.[84] Uber, Lyft, and Via initially opposed the rule by filing a lawsuit to stop the rule from going into effect. The two sides eventually settled the lawsuit, and the resulting agreement arguably resulted in a better regulatory program. Rather than imposing a blunt requirement that 25% of all trips must be taken in WAVs—even if many of those passengers didn't need a WAV—the final settlement requires TNCs to ensure that at least 80% of requests for wheelchair-accessible vehicles are fulfilled in under 10 minutes, and 90 percent are fulfilled in under 15 minutes.[85] This settlement leverages the new forms of data available in TNC services to track progress toward a specific civil rights

[82] Linda Morris & Alejandro Agustin Ortiz, *Trump Administration's New Rule Will Slam Door to Fair Housing*, American Civil Liberties Union: News & Commentary (Oct. 16, 2019), https://www.aclu.org/news/racial-justice/trump-administrations-new-rule-will-slam-door-to-fair-housing/.
[83] Rachel Reed, *Disability Rights in the Age of Uber: Applying the Americans with Disabilities Act of 1990 to Transportation Network Companie*s, 33 Georgia State University Law Review 517, 523 (2017) (describing the federal DOT's role in implementing the ADA).
[84] *See* New York City Taxi & Limousine Commission, *FHV Accessibility: Trip Percentage Rule FAQ*, https://www1.nyc.gov/assets/tlc/downloads/pdf/faq_fhv_accessibility_rule_information.pdf.
[85] Alice Grossman, *New York City and TNCs Settle on Performance Measures for Accessible Service Requirements*, Eno Center for Transportation (June 20, 2018), https://www.enotrans.org/article/new-york-city-and-tncs-settle-on-performance-measures-for-accessible-service-requirements/.

goal, helping to ensure that TNCs are making their services progressively better for people who depend upon WAVs.

California provides another potential model for increasing the number of WAVs that TNCs provide. In 2018, the California legislature passed a law directing the state's Public Utility Commission to levy a ten-cent fee on every TNC ride in California. The revenues from the fee are deposited into a fund called the TNC Access for All Fund, which helps pay for programs aimed at increasing the number of wheelchair-accessible vehicles in on-demand transportation.[86]

As the federal government under President Trump retreats from civil rights enforcement, now may be an especially important time for state and local regulators to step up their oversight of local and regional transportation agencies. In partnerships with TNCs, such a role would build on the work already being done by many states and localities to start regulating TNCs to advance pubic goals such as reducing congestion and improving accessibility.

II. The Emergence of Ride-Hailing Partnerships

A. Ride-Hailing and Public Transportation: Competition or Complements?

In only a few short years, digital ride-hailing platforms have made significant changes to the transportation landscape. UberCab, later to be named Uber, first debuted in 2010. Its primary competitor in the United States, Lyft, launched only two years later.[87] As both companies grew rapidly in the following years, much of the focus in the transportation research community centered on the question of whether ride-hailing services would help or hurt public

[86] *See* California Public Utilities Commission, *TNC: Accessibility for Persons with Disabilities Program*, https://www.cpuc.ca.gov/tncaccess/ (describing the program).
[87] Avery Hartmans & Paige Leskin, *The History of How Uber Went from the Most Feared Startup in the World to its Massive IPO*, Business Insider (May 18, 2019), https://www.businessinsider.com/ubers-history#december-2011-uber-begins-to-expand-internationally-starting-with-paris-france-it-also-closes-a-32-million-series-b-funding-round-led-by-menlo-ventures-amazon-ceo-jeff-bezos-and-goldman-sachs-11.

transportation. Proponents of ride-hailing companies argued that these services could reduce dependence on personal automobiles and thus complement public transportation by allowing transit users to live car-free, while occasionally taking a ride-hailing service as needed. Skeptics worried that ride-hailing companies would cannibalize transit ridership and cause transit agencies to lose revenue.[88] Moreover, by increasing the number of cars on the road, Uber or Lyft threatened to increased congestion, thereby slowing down city buses.

Empirical research into whether ride-hailing services are substitutes or complements for public transportation has shown mixed results. In a recent study, Hall et al. found that Uber and Lyft can complements transit agencies that operate in large cities, with the presence of TNC services positively associated with increases in transit ridership. However, the authors also found that transit ridership decreases in mid-sized cities as TNC usage increases.[89] A growing body of work on congestion seems to confirm that increasing usage of TNC services does in fact increase traffic and slow down road speeds. While Uber and Lyft tout the possibility for users to take shared rides with other passengers, shared rides remain low as an overall percentage of user trips. Moreover, Uber and Lyft vehicles cause additional congestion—beyond what a regular private automobile would cause—through the periods of time in which TNC drivers are cruising around looking for a ride. In a recent study of San Francisco, Erhardt et al. found that TNCs were responsible for a substantial portion of the increase in congestion that the city has seen since 2010.[90]

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[88] *See* Massachusetts Bay Transportation Authority, *Emerging Transportation Network Company (TNC) Environment and Considerations for Public Transit* (Mar. 13, 2017), https://www.mass.gov/files/documents/2017/10/18/TNC_Environment_031317.pdf at 11-18.
[89] Jonathan D. Hall et al., *Is Uber a Substitute or Complement for Public Transit?*, 108 Journal of Urban Economics 36 (2018).
[90] Erhardt et al., *Do Transportation Network Companies Decrease or Increase Congestion?*, Science Advances, May 2019.

In 2015, in the midst of debates over whether TNCs could be a threat to public transportation, several transit agencies began actively exploring the possibility of forming partnerships with ride-hailing companies. For cash-strapped transit agencies, these partnerships offered means of cutting costs while still providing some form of transportation service. For Uber and Lyft, teaming up with transit agencies provided ways to garner positive press attention and demonstrate that TNCs could in fact complement, rather than weaken, public transportation. The next section provides an overview of the different forms and objectives of partnerships that agencies and TNCs have gone on to form.

B. Diverse Objectives and Forms of Partnerships

The past four years have produced a remarkably diverse set of partnerships between transit agencies and TNCs.[91] These partnerships have sought to advance various programmatic aims, ranging from providing better paratransit service to cutting costs to reducing the need to build new parking facilities at commuter rail stations. This section provides an overview of the different objectives of TNC partnerships, as well as the different methods agencies have used to partner with TNCs.

i. First-Mile/Last-Mile Solutions

A number of partnerships seek to utilize subsidized TNC services to solve what's known as the First-Mile/Last-Mile problem in public transportation, or the difficulty in carrying passengers from a bus or train route to their final destination.[92] To help riders get to or from a transit line, several agencies have formed partnerships with TNC services. Typically, these

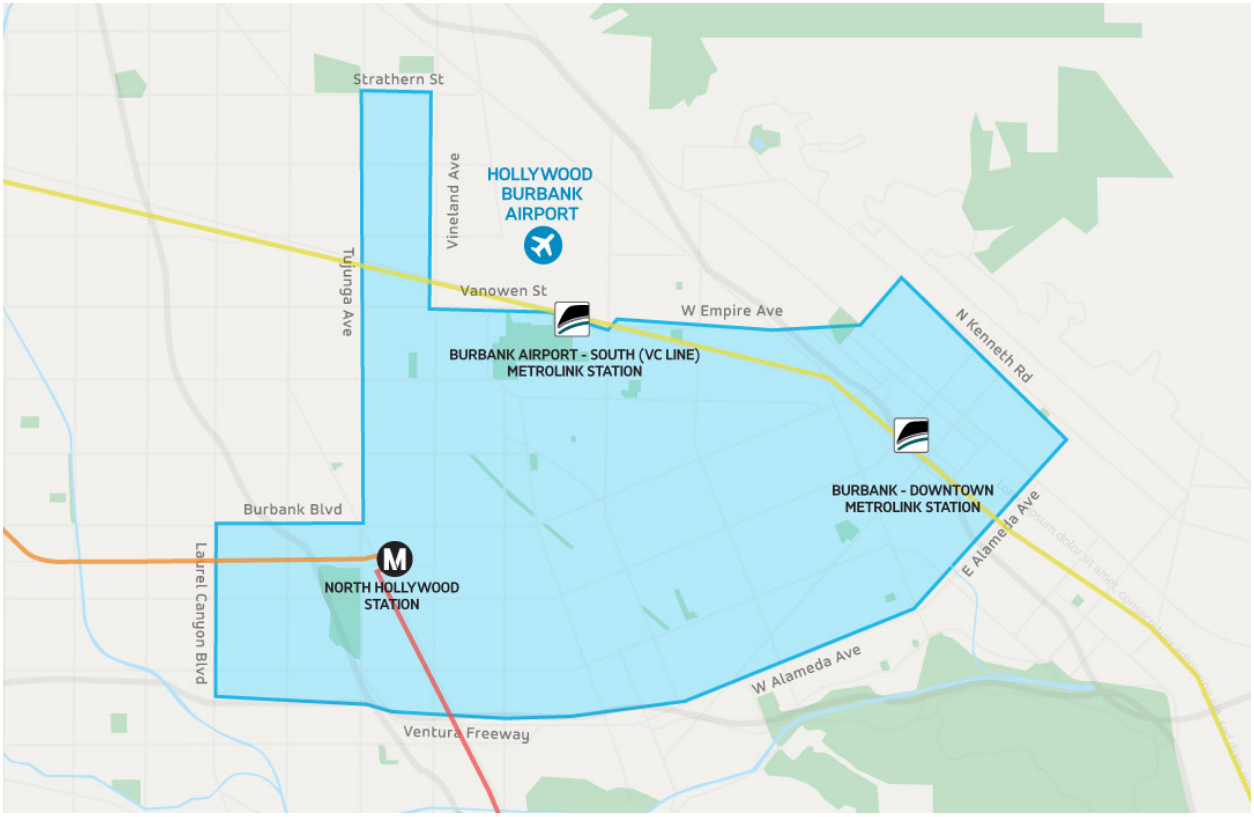
[91] For lists of partnerships between transit agencies and TNCs, *see* Schwieterman, *supra* n.1; American Public Transportation Association, *Transit and TNC Partnership*, https://www.apta.com/research-technical-resources/mobility-innovation-hub/transit-and-tnc-partnerships/; Terra Curtis et al., *Partnerships Between Transit Agencies and Transportation Network Companies (TNCs)*, Transit Cooperative Research Program: Research Report 204 (2019).

[92] *See generally* Alex Gibson, *Eliminating Public Transit's First-Mile/Last-Mile Problem*, TransLoc (Jan. 26, 2016), https://blog.transloc.com/blog/eliminating-public-transits-first-mile-last-mile-problem.

partnerships define a geographic zone, or "geofence," in which riders can call a ride-hailing service, and then receive a discount if they take the ride to or from a transit stop.

LA Metro, for example, has partnered with Via to pilot a First-Mile/Last-Mile program that carries riders in select geographic areas to and from transit stations. Figure 2 shows a map of one of the service zones where people can call for a Via, which riders can then take to one of three transit stations.

Figure 2. Map of One of LA Metro's Service Zones[93]

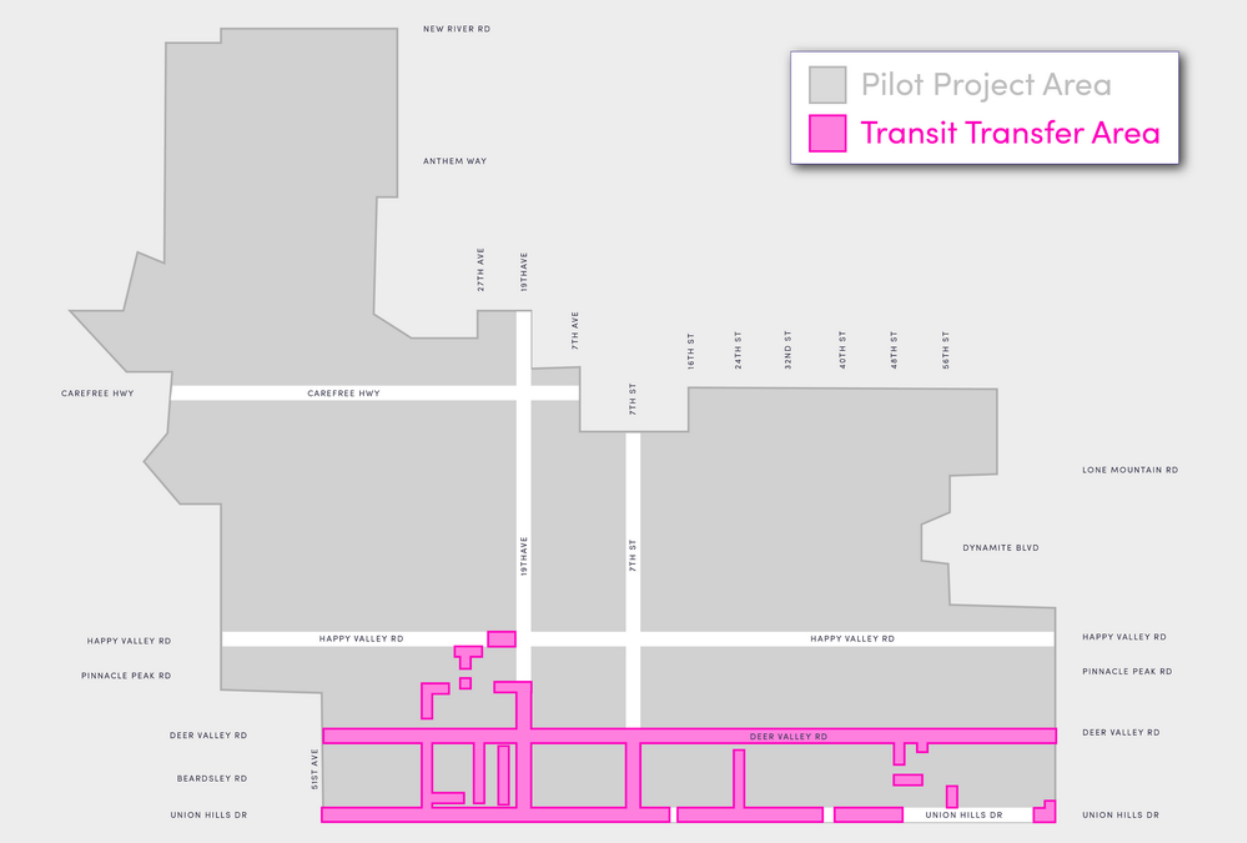


In Arizona, the City of Phoenix created a similar First-Mile/Last-Mile pilot, this time with Lyft. During the course of this one-year pilot, which ended in 2018, riders were able to call

[93] *Ride with Via*, LA Metro, https://www.metro.net/projects/mod/.

for Lyfts—and received a 20% discount on their ride—if they took the Lyft to or from major avenues along which the City operates bus service. The Phoenix example shows another variant of drawing geofences with the intention of creating a First-Mile/Last-Mile option for transit users.

Figure 3. One of the Service Areas for the City of Phoenix's First-Mile/Last-Mile Pilot



While the aim of these First-Mile/Last-Mile programs is to connect riders to public transportation, there is generally no requirement for riders to actually transfer to a train or bus after taking a subsidized TNC ride. Most agencies set up their programs to accept any riders who are traveling to or from the geographic areas immediately surrounding transit stops. Nonetheless, agencies who have collected data on these partnerships have found that a significant number of riders appear to be using them to connect to public transportation.

ii. Expanded Hours

A related set of partnerships seek to expand coverage temporally, enabling riders to call for a subsidized Uber or Lyft ride when public transportation has ceased operating or has been

scaled back after the end of the normal business day. For example, Pierce Transit, which serves riders in and around Tacoma, Washington, partnered with Lyft to provide a guaranteed ride home at night for students at Pierce College Puyallup, a public community college.[94]

One of the more prominent examples of an after-hours TNC partnership is the City of Detroit's Night Shift program. Launched in 2018, the program provides a $7 subsidy for users to take a Lyft ride between the hours of 12am and 5am.[95] Combining elements of an afterhours program and a First-Mile/Last-Mile solution, the credit is only available for riders who take a Lyft to or from one of the ten central transit corridors along which the city operates overnight bus service. Phone interviews that the City has conducted with participants in the program show that users tend to be younger people who are working late-night manufacturing and service jobs.

iii. Service Cuts, Network Redesigns, and Providers of Last Resort

A third use of TNC partnerships is to ensure that transit agencies can continue to provide some level of service if the agency is scaling back service or redeploying larger buses to more heavily trafficked corridors. For example, in 2017, the Greater Dayton Regional Transit Authority (RTA) created the RTA Connect program, a partnership with both TNCs and local taxi companies. As part of the program, RTA provides fully subsidized rides to passengers within five select geographic zones. The RTA chose the zones after the agency saw a substantial reduction in the dedicated sales tax revenue that it received, forcing the agency to both increase fares and cut service.[96] The partnership with Uber, Lyft, and local taxi companies enabled the

[94] *Limited Access Connections*, Pierce Transit, https://www.piercetransit.org/mobile/limited-access-connections-1.
[95] *See* Jer Staes, *Detroit's City Bus System to Partner with Lyft to Get Riders to Late Night Jobs*, Daily Detroit (May 8, 2018), http://www.dailydetroit.com/2018/05/08/detroits-city-bus-system-partner-lyft-get-riders-late-night/ (describing the program).
[96] *See* Chris Stewart, *RTA Set to Raise Rates, Trim Routes to Cover $4.6M Sales Tax Loss*, Dayton Daily News (Dec. 19, 2017), https://www.daytondailynews.com/news/local/rta-set-raise-rates-trim-routes-cover-sales-tax-loss/GUV999scaQL2fdKTecy9hJ/.

agency to provide some form of transportation option to people in low-ridership areas, even as the agency scaled back fixed-route service.

Capital Metro (Cap Metro) in Austin, Texas provides another example of partnerships that plug gaps in areas formerly served by fixed-route transit. However, Cap Metro's TNC-partnerships fill a gap left not from absolute cuts in service, but through comprehensive network redesigns.[97] Public transportation agencies are often slow to update bus routes, even as changing land uses and travel patterns lead to a mismatch between the areas the agency currently serves and the places riders actually want to go.

In 2015, Houston implemented a massive redesign of its bus network, and subsequently saw overall ridership increases. Inspired by the Houston example, several transit agencies have followed suit, drafting comprehensive network redesign plans to better align bus routes and frequencies with the services riders actually need. However, one of the principal barriers to implementing bus network redesigns is the concern that agencies will leave customers who currently depend upon a bus route without any transportation options if the agency redeploys buses to other areas.

Partnerships with ride-hailing companies may provide one solution. As part of Austin's network redesign process, dubbed "Cap Remap," the agency identified bus routes with particularly low ridership numbers, some with as few as 11 or 13 riders a day.[98] Cap Metro proposed redeploying some of those buses to transportation corridors with higher demand. For some of the areas left without service, or with diminished service, Cap Metro decided to form

[97] *See How Austin's Capital Metro Pulled Off a Bus Network Redesign*, Transit Center (July 25, 2018), https://transitcenter.org/austins-capital-metro-pulled-off-bus-network-redesign/ (describing the network redesign).
[98] *Ridership by Route*, Capital Metro (2015), https://www.capmetro.org/uploadedFiles/Capmetroorg/About_Us/Data_and_Statistics/Ridership-History-Fall-2015v3.pdf (listing ridership numbers before the network redesign).

partnerships with TNCs to continue to serve those areas. The agency has instituted a series of different partnerships with Ride Austin, a local non-profit TNC provider, and with Via. The agency has experimented with a First-Mile/Last Mile program, where riders in select geographic zones can take a TNC to or from a local transit line, as well as with larger geofenced zones where riders can hail an on-demand ride and take a trip anywhere within the zone. The Cap Metro example demonstrates how TNC partnerships may be useful when agencies are considering redesigning bus routes but still wish to provide options to people who live in previously served areas.

iv. Paratransit

Several transit agencies have sought to utilize partnerships with ride-hailing companies to improve paratransit services. The Americans with Disabilities Act requires transit agencies to provide door-to-door paratransit services for people with disabilities.[99] Legally, transit agencies must provide paratransit services that are comparable in cost and quality to fixed-route services.[100] However, in practice, paratransit services often underperform relative to fixed-route transportation in several respects. For example, paratransit riders often have to schedule rides a day in advance, and even then, paratransit rides are often late or are cancelled due to a lack of drivers and vehicles. Transit agencies have turned to partnerships with ride-hailing companies as one way to address deficiencies in paratransit services.

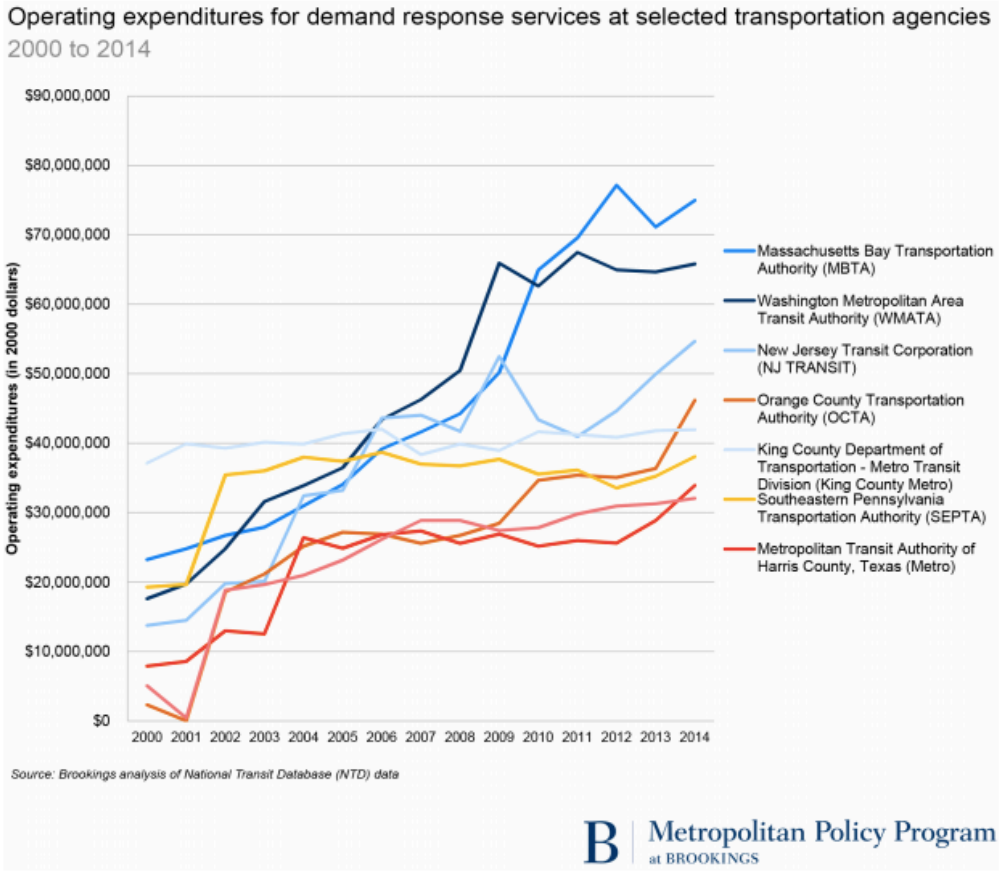
In addition to improving performance, transit agencies have also looked to TNC services as a way to reduce the costs of providing paratransit services. In Massachusetts, for example, the

[99] *See generally* Sarah M. Kaufman et al., *Intelligent Paratransit*, NYU Rudin Center for Transportation Policy & Management (2016), https://wagner.nyu.edu/files/rudincenter/2016/09/INTELLIGENT_PARATRANSIT.pdf.
[100] 49 C.F.R. § 37.121(a) (2019) ("[E]ach public entity operating a fixed route system shall provide paratransit or other special service to individuals with disabilities that is comparable to the level of service provided to individuals without disabilities who use the fixed route system.").

average cost to the MBTA of providing one trip on its regular paratransit service is $52,[101] compared to $3-5 per trip for fixed-route subway and bus service.[102] Agencies have also seen increasingly levels of demand for paratransit service, a combination of changing demographics—such as aging baby boomers—and increased awareness and utilization of paratransit services.[103] Figure 4 shows the increasing cost to transit agencies of providing paratransit services:

[101] Eric Gonzales, *Optimizing ADA Paratransit Operation with Taxis and Ride Share Programs*, Report to the Massachusetts Department of Transportation (May 2019), https://www.mass.gov/files/documents/2019/07/17/ADA_Paratransit_Operations2019.pdf, at 5.
[102] Abby Elizabeth Conway, *With Fare Hikes on the Table, Here's How Much Your Ride Costs the MBTA*, WBUR News (Oct. 22, 2015), https://www.wbur.org/news/2015/10/22/mbta-fare-subsidies.
[103] *See* Kaufman et al., *supra* n.99.

Figure 4. Paratransit Expenditures (2000-2014)[104]



In an effort to cut costs, and perhaps to expand and improve paratransit service as well, many transit agencies have turned to partnerships with ride-hailing companies. For example, in Santa Monica, the City's Big Blue Bus (BBB) transit provider created the Mobility on Demand Every Day (MODE) Program in 2017. Previously, BBB provided paratransit services through six city-owned vehicles, leading to capacity problems and delays for riders at peak times. Through the MODE partnership, BBB has expanded the services it provides. As part of the program, BBB provides Lyft with the phone numbers of all eligible MODE customers, who must be residents of Santa Monica and must either be over 60 years old or else have a disability. The subsidized-Lyft

[104] Joseph W. Kane et al., *How Lyft and Uber Can Improve Transit Agency Budgets*, Brookings (Mar. 8, 2016), https://www.brookings.edu/research/how-lyft-and-uber-can-improve-transit-agency-budgets/.

rides must be taken either within the Santa Monica city limits, or else to or from one of four nearby areas that BBB identified as useful for its riders. These areas include medical centers like the nearby West Los Angeles V.A. Medical Center and the UCLA Medical Center.

The BBB program has been a success by most metrics. In the pre-Lyft era, BBB provided paratransit services to 440 unique individuals as part of its dial-a-ride program, totaling 22,000 trips per year. In the first full year of running its MODE partnership with Lyft, BBB saw those numbers more than double. The city now serves 1,000 unique individuals who took a total of 56,000 trips last year.

The popularity of the program has caused BBB to introduce some changes to help handle the increase in demand. A year into the program, BBB scaled back the number of monthly trips that riders could take from 40 to 30. The agency also instituted a new (and higher) two-tiered fare system in which the standard fare for riding a BBB-subsidized Lyft would be $1.50, while customers who qualified as low-income riders would only be charged $0.75, compared to the old dial-a-ride fare of $0.50.

The BBB paratransit pilot highlights several of the unknowns and controversies that surround these partnerships. These challenges, discussed below in Section II.C, include whether these partnerships are financially sustainable, as well as the contentious debates about whether agencies should be endorsing the labor model of companies like Uber and Lyft, which so far have classified drivers as independent contractors to avoid the added expense of providing a minimum wage, employee benefits, and payroll taxes.

v. Miscellaneous: Parking Reduction and Event-Specific Goals

Finally, while most of the partnerships have focused on the mainstays of providing paratransit service or extending the reach of public transportation networks, various partnerships

have also sought to tackle more specific and sometimes transient public transportation needs. For example, the San Diego Metropolitan Transit System has partnered with Uber to provide $5 discounts for people who take UberPool—Uber's shared-service—to and from Comic-Con, the annual gathering of comic-book enthusiasts in downtown San Diego.[105] The City of Summit, New Jersey has partnered with Lyft to tackle the problem of overpacked parking lots near the City's commuter rail station.[106] As part of the partnership, the City fully subsidizes rides to and from the Summit commuter rail station for residents who already have prepaid parking permits, with the hope that providing an incentive to forego parking at the commuter rail station will help free up spaces for other riders.

C. Uncertain Future: Challenges and Concerns with TNC Partnerships

While the number and diversity of partnerships that transit agencies have formed suggest a strong interest among many transit agencies to utilize TNC services, a number of questions remain about whether these partnerships may be viable over the long term. Even if they are financially viable, concerns remain that these partnerships may not ultimately be in the best interest of either public transportation riders or workers, particularly if legislators and transit agencies divert scarce funds away from high-capacity public transportation systems and toward lower-capacity TNC services. This section discusses some of the short- and long-term concerns associated with TNC partnerships.

i. Financial Sustainability

[105] *MTA Announces New Partnership with Uber*, Metropolitan Transit System (July 7, 2016), https://www.sdmts.com/inside-mts/news-release/mts-announces-new-partnership-uber.
[106] Liz Alterman, *Summit's Lyft Partnership Could Serve As a Model for Other Communities*, NJ Next (Dec. 8, 2017), https://njnext.com/summits-lyft-partnership-serve-model-communities/.

One concern is whether subsidizing TNC services will be financially sustainable for transit agencies. This section discusses four factors that affect the financial viability of these partnerships: 1) the relatively high cost, today, of providing these services, 2) the inability to capitalize on the substantial economies of scale that exist in regular public transportation, 3) the prospect that TNC services will become more expensive as TNC drivers become classified as employees, or states find other ways to levy payroll taxes on TNCs, and 4) the increased costs of providing services once TNC rides are no longer subsidized by venture capital funding.

1. Current Costs

Currently, most transit agencies are paying a subsidy for TNC partnerships that is fairly generous by the standards of public transportation. The size of these subsidies varies, and depends in part on how an agency structures its program. A number of agencies and localities have set relatively modest ceilings on how much the agency will pay for a user to take a TNC ride. For example, the City of Dublin, CA ostensibly pays 50% of the cost of a Lyft ride, but it caps the total value of the subsidy it provides at $5.[107]

Other agencies start by charging riders a fixed fare that is comparable to pre-existing bus or train fares, and then the agency pays the rest of the cost of the ride, up to a certain amount. In the MBTA's paratransit service partnership, for example, customers pay the first $1 or $2 of their fare, and the MBTA will pay the rest of the cost of the ride up to a total of $40. Customers qualify for the $1 fare option if they use a shared TNC ride, such as a Lyft Line or UberPool, while they are charged the $2 fare if they call for a single-passenger ride.

Using this pricing formula, the MBTA pays an average of $17 for each TNC trip. The $17 subsidy per ride is similar to amounts I heard from officials at other transit agencies in the

[107] *See* Schwieterman, *supra* n.1 at 70.

interviews I conducted. Officials reported that the average cost to the agency of subsidizing an Uber or Lyft ride ranged from $13 to $20 per trip when the agency didn't use the small, fixed-amount subsidy that cities like Dublin, CA use.

Whether a $17 subsidy represents a worthwhile expenditure depends in part on how much value the public and transit agency officials view these partnerships as providing, relative to other options. In rare cases, such as for operating paratransit services, these subsidies may still be lower than the alternatives available to the transit agency. However, these subsidies often represent much higher payouts than go to riders of other modes of public transportation. In Denver, for example, the fares that riders pay on high-demand bus routes cover a sizable portion of the overall cost of operating those routes, leaving the Regional Transportation District (RTD) paying between $2.83 and $1.36 for each trip.[108] However, the subsidies for the region's light rail and commuter rail services are higher, averaging $8 per ride.[109] Subsidizing TNC services is thus more expensive than traditional bus and rail services, though TNCs may also provide a significantly better service, particularly in areas that are currently served by only a few, low-frequency bus lines.

2. Scalability

A second question concerns the issue of scalability. One of the advantages of public transportation is that buses and train services tend to exhibit economies of scale on multiple fronts. As ridership increases on a bus or train line, the average cost per trip to the agency generally decreases, since the cost of providing a driver and a vehicle is spread out across more riders. Moreover, as demand grows even higher, service can improve as well. Higher ridership

[108] Nathaniel Minor, *Fares Don't Cover the Price of Buses and Trains. That Leaves RTD a Big Budget Dilemma*, CPR News (Sept. 25, 2019), https://www.cpr.org/2019/09/25/the-report-that-rtd-uses-to-judge-its-own-success-is-here/.
[109] *Id*.

may lead transit agencies to increase the number of vehicles that operate on a bus or train line. This in turn can reduce wait times for passengers and improve the experience, which can lead to even more riders choosing to opt for public transit, thus lowering once again the average cost per ride. For traditional transit agencies, more riders are usually better, provided that the agency can keep increasing capacity.

However, TNC services don't exhibit these same increasing returns to scale. More demand for publicly subsidized TNC services will not necessarily lower the average cost per passenger by any significant amount. From an economic theory perspective, providing two Uber rides won't necessarily cost exactly twice as much as providing one Uber ride. As more passengers call rides, TNC drivers may utilize their vehicles more efficiently and thus be able to charge less per ride. This would certainly be true if more trips are taken on shared rides such as UberPool or Lyft Line. However, the percentage of trips taken on these shared-ride offerings remains low, particularly outside the densest urban cores where many of these partnerships are occurring.[110]

The lack of meaningful economies of scale has put some agencies in the awkward position of finding that their partnerships are becoming *too* successful. As mentioned above, Santa Monica's Big Blue Bus had to increase fares on its subsidized paratransit service after demand increased, but the agency's budget for the program did not grow.

3. Labor Model and Payroll Taxes

[110] Data on the exact percentage of shared rides taken is difficult to come by. Bruce Schaller reports that UberPool and Lyft Line constitute 20% of the overall rides provided by TNCs. However, it is unclear if this amount represents the number of riders that were actually shared, or the percentage of riders who called for an UberPool or Lyft Line, even if their vehicle did not end up picking up another passenger. *See* Bruce Schaller, *The New Automobility: Lyft, Uber and the Future of American Cities* (July 25, 2018), http://www.schallerconsult.com/rideservices/automobility.pdf.

The need to pay higher labor costs and payroll taxes may also drive up the cost of TNC services, and thus increase the cost of partnering with TNCs. Recently, courts and politicians at both the state and local levels have taken steps to classify Uber and Lyft drivers as employees, not independent contractors. In 2018, the California Supreme Court issued a ruling altering the test used to determine if a worker is an employee or an independent contractor. The new test would consider three factors, including whether the worker is "free from the control and direction of the hiring entity" and whether the worker "performs work that is outside the usual course of the hiring entity's business."[111] These factors would seem to indicate more clearly that gig-economy drivers are in fact employees, who could be owed higher minimum wages and benefits. In 2019, the California legislature passed a law that codified and extended the California Supreme Court's ruling.[112] Uber and Lyft have both argued that the new law does not apply to them, and they have vowed to back a ballot initiative to overturn the law.

California is not alone in taking steps to ensure that TNC drivers are properly paid. The New York City Council passed legislation in 2018 to guarantee that TNC drivers receive at least a $15 minimum wage.[113]

The movement to extend proper wages and recognition to TNC drivers (and other gig workers) is complemented by another motivation: governments are starting to push to receive the payroll taxes that they are owed once drivers are properly understood to be employees of ride-hailing companies. In November of 2019, the New Jersey Department of Labor and Workforce Development sent a letter to Uber informing the company that it owed the state $649 million in

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[111] Dynamex Operations W. v. Superior Court, 416 P.3d 1, 4 (Cal. 2018).
[112] *See* Anthony Zaller, *Five Key Issues to Understand About AB 5 and its Impact on Independent Contractors*, California Employment Law Report (Sept. 27, 2019), https://www.californiaemploymentlawreport.com/2019/09/five-key-issues-to-understand-about-ab-5-and-its-impact-on-independent-contractors/.
[113] Alexia Fernández Campbell, *New York City Passes Nation's First Minimum Pay Rate for Uber and Lyft Drivers*, Vox (Dec. 5, 2018), https://www.vox.com/2018/12/5/18127208/new-york-uber-lyft-minimum-wage.

unpaid payroll taxes as a result of misclassifying its drivers as independent contractors rather than as employees.[114]

The size of the fine gives a sense of just how large Uber and Lyft's tax liabilities may actually be. New Jersey has determined Uber owes $530 million in unpaid taxes from 2014 to 2018, or approximately $100 million per year (the state is also charging another $119 million for interest on the unpaid taxes). Uber may do more business on average in New Jersey than other states, but New Jersey still only represents 2.7% of the population of the United States, giving some sense of how large Uber's true tax liability will be if more states decide to step up enforcement of payroll taxes.

4. Loss of Venture Capital Subsidies

Even today—in the absence of proper wage laws, and without needing to pay payroll taxes—Uber and Lyft are both deeply unprofitable. Earlier this year, Uber reported losses of $5.2 billion for just the second quarter of 2019.[115] Lyft is a much smaller company than Uber, but it still lost $644 million in the second quarter of 2019, the highest losses it has ever experienced.[116] So far, growth by these two companies hasn't translated into profit.

The losses that the companies post represent a form of subsidy from venture capitalists, since much of those funds have gone to discounted rides for Uber and Lyft. As investors become less inclined to pay for subsidized rides, Uber and Lyft will likely need to increase fares, thus increasing the costs to either transit agencies or their riders who participate in these partnerships.

ii. Outreach and Education

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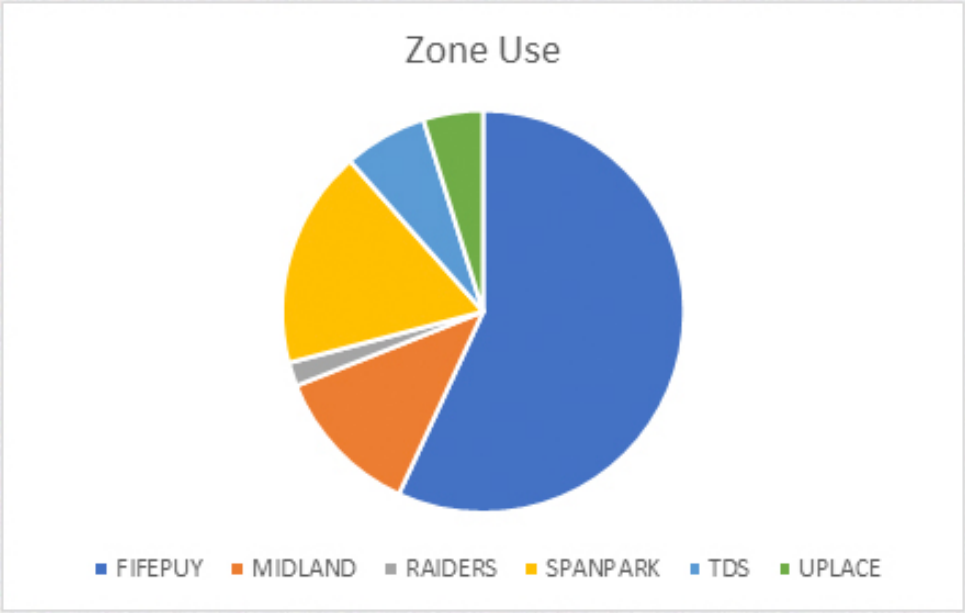
[114] *See* Matthew Haag & Patrick McGeehan, *Uber Fined $649 Million for Saying Drivers Aren't Employees,* N.Y. Times (Nov. 14, 2019), https://www.nytimes.com/2019/11/14/nyregion/uber-new-jersey-drivers.html.
[115] Graham Rapier & Troy Wolverton, *Uber Lost $5.2 Billion in 3 months. Here's Where All That Money Went.*, Business Insider (Aug. 9, 2013), https://www.businessinsider.com/where-uber-spends-its-money-lost-5-billion-second-quarter-2019-8.
[116] Kate Conger, *Lyft's Losses Continue, but Company Says They Will Abate*, N.Y. Times (Aug. 7, 2019), https://www.nytimes.com/2019/08/07/technology/lyft-earnings-revenue.html.

In addition to the questions around cost and long-term financial viability, many of the partnerships have encountered challenges in growing ridership and evaluating their programs. The next sections take up these two issues, both of which are relevant to the discussion of civil rights protections in Parts III and IV.

In the interviews I conducted, a number of transit officials stressed that one of the most difficult problems has been getting the word out about these new partnerships. Pierce Transit, for example, created several different zones in which users could hail a subsidized Lyft ride. While some zones saw ridership growth over the first several months of the pilot program, others stalled out. For example, at one point the agency created a new zone near a local community college. The aim of this zone was to provide a guaranteed ride home for students after the agency's buses had stopped running. Despite its good intentions, the agency has seen little ridership within this zone. The lack of usage could indicate a lack of demand or a problem with the underlying service design, but it also points to the difficult in getting the word out about these partnerships, particularly when a service is only available in limited areas or at limited times.

Figure 5. Pierce Transit's Ridership Has Varied Across Geographic Zones[117]



iii. Data Sharing

Transit agencies have also varied greatly in terms of the level of data they receive from their private-sector partners. As of yet, there are no industry-wide standards for how much data TNCs should provide transit agencies. Instead, agencies have negotiated data sharing agreements on a case-by-case basis as part of their service contracts with TNCs. In these negotiations, Uber, Lyft, and Via have all argued that ridership information constitutes a trade secret, which the companies are hesitant to share. In addition, the companies argue that by avoiding sharing data, they are also protecting the privacy of their users. As a result, many of the data-sharing agreements that transit agencies have negotiated have included only sparse data. This is particularly true for the earlier wave of partnerships that were first formed in 2016 and 2017. For example, Pinellas Suncoast Transit Authority initially only received monthly receipts from Uber that listed the total number of riders who had called for a ride using the agency's subsidized

[117] Pierce Transit, *supra* n.94.

service. This monthly invoice contained no additional information, such as data on the origins and destinations of the trips taken.

In recent years, the expectations about what level of data TNCs must provide appears to be changing. In my interviews, multiple agencies mentioned that they had received more data in recent years from their TNC partners. For example, in its contracts for paratransit service, the MBTA initially received figures on origins and destinations that were aggregated to the zip-code level. More recently, the MBTA has been receiving latitude and longitude information for trips from its TNC partners, which enables it to better evaluate how its paratransit program is being used.

Other agencies have utilized the availability of multiple TNC providers to reach better data-sharing agreements. In 2016, for example, LA Metro applied for a federal grant from the FTA's Mobility on Demand Sandbox program. After receiving the grant, LA Metro entered into contract negotiations with one TNC provider. Eventually, the negotiations broke down, in part over the inability to come to an agreement about who would be responsible for providing wheelchair accessible vehicles, but also because the TNC provider was reluctant to provide the level of data on ridership usage that LA Metro wanted. In the end, LA Metro ended up contracting with Via to provide an on-demand First-Mile/Last-Mile service. As part of its agreement with Via, LA Metro created four Key Performance Indicators (KPIs). These performance metrics include average wait times for riders, average customer ratings, the number of rides per hour that each driver provides, and total weekly rides. In addition, the agency receives geographic information on the origins and destinations of rides.

The agency receives all of this information on a trip-by-trip basis. However, at that level of detail, the data is deemed to be a trade secret that LA Metro cannot share publicly. The data

sharing agreement allows LA Metro to share information on ridership trends once that information has been aggregated to the weekly level. So far, LA Metro has been releasing quarterly reports with assessments of the service.

The increasing availability of ridership information, including geographic information on the origins and destinations of rides, should enable more agencies to understand who is using their services. These analyses, in turn, may be helpful in identifying barriers for equitable use of these new TNC services. Drawing on the same set of interviews referenced in this section, the next Part examines how transit agencies have utilized the increasing levels of data they receive to further their civil rights obligations.

III. How Have Transit Agencies Approached Their Civil Rights Obligations in the Context of Partnerships with TNCs?

While a growing body of research has examined the different forms of TNC partnerships,[118] as well as the difficulties that arise in contract negotiations between public agencies and TNCs,[119] to my knowledge, no research has yet examined the ways in which transit agencies are implementing their civil rights obligations in the context of TNC partnerships.

This section draws on 18 interviews with officials at transit agencies and advocacy groups to understand how transit agencies have been advancing equity and inclusion within these partnerships. The first section discusses potential concerns relating to racial, economic, and disability justice that arise in these partnerships, outlining why the topic of civil rights protections has particular relevance within these partnerships. The second section discusses the interview methodology. The third section documents the range of innovative approaches that

[118] Schwieterman, *supra* n.1.
[119] Curtis et al., *supra* n.13.

agencies have adopted to make their TNC partnerships more accessible to people with disabilities. And the fourth section presents the finding that there has been comparatively less innovation with respect to two other civil rights laws—Title VI of the Civil Rights Act of 1964 and President Clinton's Executive Order on Environmental Justice.

A. Potential Civil Rights Concerns

While partnerships between transit agencies and TNCs have the potential to improve mobility for many users of the public transportation system, these partnerships also present their own challenges when it comes to broad-based access for riders of all income levels, ethnicities, geographies, and disabilities.

i. Lack of Accessibility

One recurrent theme in my interviews with officials at transit agencies was the need to make these services accessible to people of all physical abilities. These partnerships, while potentially very helpful for people with disabilities, also present a number of challenges. Most immediately, companies such as Uber and Lyft have a poor track record when it comes to providing wheelchair accessible vehicles (WAVs). The two companies generally rely on individual drivers to supply their own personal vehicles, very few of which are outfitted for people who need wheelchair lifts. Consequently, Uber and Lyft field only a limited number of WAVs, raising concerns that partnerships between transit agencies and Uber and Lyft will fail to serve many riders who have physical disabilities.

TNC partnerships present other challenges as well for people with disabilities. Transit agencies have to ensure, for example, that either people with visual impairments can use and access the apps that are needed to call a ride, or that riders have a call-in option that they can use

in lieu of the app. One agency official I spoke with discussed concerns that TNC drivers wouldn't be knowledgeable about how to best help passengers with mental health problems or intellectual disabilities.

ii. The Skewed Demographics of Regular TNC Ridership

While accessibility for people with physical and mental disabilities presents one set of challenges for transit agencies, these new partnerships also raise questions related to economic and racial equity. Title VI and the Executive Order on Environmental Justice together require agencies to ensure that the benefits and burdens of their programs are distributed equally. While it is possible that many TNC partnerships will advance racial and economic equity, there remain some causes for concern.

One of these concerns involves the demographics of regular TNC users, and questions about whether those demographic trends will carry over to publicly subsided services. While high-quality data is difficult to come by, existing studies of TNC usage indicate that users of regular TNC services tend to be younger and more affluent than the average American.[120] It is possible that subsidies provided by a transit agency could alleviate or even eliminate this disparity in TNC usage. However, the degree to which a public subsidy helps narrow the gap in usage across levels of income may depend upon the size and structure of the subsidy in question.

Given the known discrepancies in TNC usage, agencies should evaluate whether these demographic trends are being replicated within their partnerships. An agency that finds, for example, that its partnership is disproportionately serving wealthy riders may need to change the design of the program or conduct better outreach to certain groups of users. Information on income and ridership could be gathered directly through surveys of riders, or else indirectly by

[120] *See* Schaller, *supra* n.19 at 11.

using the geographic information on trip origins and destinations to see if riders are disproportionately traveling to and from more affluent areas.

iii. The Variation in TNC Services & Fares Based on Geography

While Uber and Lyft don't share much information on the algorithms that direct vehicles and dynamically set prices, it is clear that both service quality and the price that customers pay vary based on geography. For example, economists at Uber noted that within a single city, there can be significant variations in the prices that Uber charges depending upon the origin and destination of the trip.[121]

Given the high degree of economic and racial segregation in American cities,[122] it is possible that algorithms that utilize geography to set prices may adversely affect neighborhoods where residents are predominantly people of color or low income. It is also possible that in some cities, TNCs may be less expensive (and provide better service) in these neighborhoods. Quite possibly, the results will vary by city and over time as TNCs change their algorithms. Either way, transit agencies should compare the quality of response times, cancellation rates, and fares across neighborhoods to see if some neighborhoods are being served better or worse than others.

iv. Design Decisions by Transit Agencies

In addition, transit agencies are themselves making decisions when designing these programs that have implications for racial, economic, and disability justice. Many agencies are, for example, designating certain geographic zones in which riders can hail a TNC service and then receive a subsidy to complete that trip. When deciding on the number of zones and drawing

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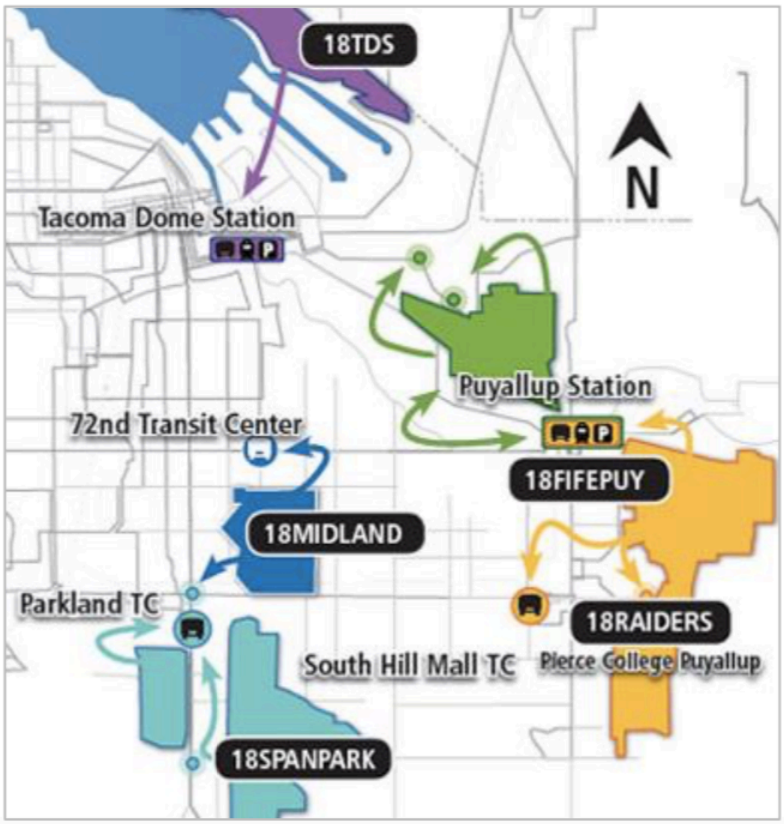
[121] Jonathan V. Hall et al., *Pricing Efficiently in Designed Markets: The Case of Ride-Sharing*, Working Paper at 20 (May 10, 2019), https://john-joseph-horton.com/papers/uber_price.pdf (noting that the authors had to exclude 15 cities from their study due to "significant within-city geographical variation in pricing").
[122] *See* Jenny Schuetz, *Metro Areas Are Still Racially Segregated*, Brookings (Dec. 8, 2017), https://www.brookings.edu/blog/the-avenue/2017/12/08/metro-areas-are-still-racially-segregated/; Richard Florida, *America's Most Economically Segregated Cities*, CityLab (Feb. 23, 2015), https://www.citylab.com/life/2015/02/americas-most-economically-segregated-cities/385709/.

their boundaries (also called "geofences"), transit agencies often look at factors such as whether a given zone provides access to opportunities that riders may want to access, as well as whether the zone is already well-served by bus routes.[123] Figure 7 shows an example of one set of geofences: the five zones that riders can take through Pierce Transit's partnership with Lyft.

Figure 7. Map of Geofences for Pierce Transit's First-Mile/Last-Mile Partnership[124]



While these geofences are often thoughtfully chosen, they also represent one way in which agency officials may unwittingly disfavor certain groups, if the number, locations, and boundaries of the zones are not equitably drawn.

[123] *See, e.g.*, Ely Portillo, *Transit Ridership is Falling in Charlotte. Could Lyft and Uber Give it a Boost?*, The Charlotte Observer (Aug. 23, 2018), https://www.charlotteobserver.com/news/local/article217129035.html (describing how two zones were selected in Charlotte).
[124] Schwieterman, *supra* n.1 at 5.

In addition to decisions about where to designate geofences, other aspects of these partnership may present barriers to full participation. For example, the fares that agencies charge, the hours that a service is available, or the method of payment that is required (such as a credit card to use on an app-based system) may represent barriers to low-income users.

When it comes to planning for fixed-route transportation, some of these barriers are well known. Because these TNC partnerships are new, and because transportation planners have only a nascent understanding of the design and outreach considerations that are needed to make these partnerships truly successful and equitable, it would seem especially important for transit agencies to track and evaluate their ridership data. Disparities in usage across different groups, such as between low- and high-income riders, may suggest that additional actions—whether in service design or outreach and engagement—are needed to make the service more equitable.

B. Interview Methodology

Given what we know about possible discrepancies in service around TNC partnerships, how have public transportation agencies been fulfilling their legal obligation to ensure that they provide non-discriminatory service?

To answer this question, I first reviewed the existing research on TNC partnerships, and then conducted 18 semi-structured interviews. Thirteen of these interviews were with officials at transit agencies who have been involved in these partnerships, and five were with civil rights advocates, researchers, and transportation planners who have studied or worked on issues concerning TNCs. Appendix A includes a list of questions that served as the starting point for the interviews, which typically lasted between 30 and 60 minutes.

C. Service Design vs. Service Evaluation

As an initial starting point for analysis, it is helpful to distinguish between two related but distinct aspects of TNC partnerships: service design and service evaluation. Both aspects are critical for civil rights law, and ideally the first four years of TNC partnerships would produce better understandings of how to both design and evaluate services to further the ends of civil rights programs. Designing programs to target barriers to using public transportation can advance the goals of equality and inclusion that lie at the heart of civil rights law. At the same time, programs need to be evaluated to identify problems that need to be fixed or to demonstrate compliance with civil rights laws.

Transit agencies have traditionally relied upon impact analyses to evaluate the distributional implications of service and fare changes. As discussed above in Section I.D, these impact analyses, while helpful, also suffer from a number of limitations, such as the difficulties in collecting accurate and up-to-date information on the demographics of riders. Moreover, the impact analyses that agencies conduct for fixed-route bus and train service don't map easily onto the services that TNCs provide. For example, transit agencies typically only conduct an impact analysis when the agency implements a "major service change." But what does a "major service change" mean in the context of TNC services, where dynamic algorithms are constantly changing prices and services? In light of these kinds of questions, it would be helpful to learn how agencies have sought to design their programs to advance civil rights law, as well as how they have evaluated those programs to ensure that they are in fact providing non-discriminatory service.

Table 1 presents the major findings from my interviews. I found that this suite of partnerships has genuinely advanced our understanding of how to design partnerships to make

them more inclusive for people with disabilities. There have also been some agencies, such as the MBTA and LA Metro, that have taken substantial steps toward developing new methods of evaluating and responding to disparities in TNC usage based on access to wheelchair-accessible vehicles. However, there has been significantly less attention to designing or evaluating programs to advance the ends of Title VI and the Executive Order on Environmental Justice, with some limited exceptions.

Table 1. Summary of Findings

	Service Design	Service Evaluation
Americans with Disabilities Act	• Significant attention from transit agencies towards ADA issues in partnerships • Multiple methods of providing paratransit service through TNC partnerships	• Several new methods for evaluating ADA compliance (e.g. MBTA's the RIDE pilot program)
Title VI & the EO on EJ	• Generally minimal attention, with exceptions (e.g. Detroit's Night Shift pilot program)	• Little to no service evaluation to identify disparities based on income or ethnicity

The following sections discuss these findings in greater depth, beginning with innovations regarding accessibility.

D. Innovative Responses: The Americans with Disabilities Act

A number of agencies have used partnerships with TNCs specifically to improve paratransit service. These initiatives have a significant upside, given the deficiencies that often exist in current paratransit programs. For example, it is common practice to make paratransit users schedule rides a full day in advance, limiting the ability of riders to take spur-of-the-

moment trips. By incorporating partnerships with TNCs—which field much larger fleets of vehicles—transit agencies have been able to greatly improve the quality of paratransit service, both serving more riders and providing better service to those riders.

Santa Monica's Big Blue Bus (BBB) provides one example. BBB operates paratransit service for residents who are over sixty years old, as well as for any adult with disabilities. The City's former dial-a-ride service suffered from a number of constraints that are typical in paratransit programs. Customers were required to book rides a day in advance, and even with advanced scheduling, customers would sometimes find that no vehicle was available when they needed it.

BBB's partnerships with Lyft has improved both the quality of paratransit service and the number of riders that BBB serves. As part of the program, BBB provides Lyft with the phone numbers of eligible paratransit customers, who then receive a coupon code from Lyft that provides up to thirty subsidized Lyft rides per month. Unlike the old paratransit program, customers can call a Lyft ride spontaneously to take them anywhere within the City limits, as well as to one of four locations outside Santa Monica, such as the nearby UCLA Medical Center.

The program has been successful so far. In the first year of the partnership with Lyft, BBB saw the number of unique paratransit users more than double, from 440 users in the previous program, to over 1,000 users in the new program. Moreover, these users took more trips. In total, BBB's partnership with Lyft provided 56,000 paratransit trips in its first year, compared to 22,000 trips the year before with its dial-a-ride service.

Santa Monica's program provides a number of lessons that may be useful for other paratransit providers. For example, while the City offers its paratransit service primarily within city limits, it also worked with riders to identify health care facilities outside Santa Monica that

its users would want to access, a thoughtful service design. In addition, Santa Monica has also had to grapple with the challenge of higher demand for its subsidized Lyft partnership than it currently has the funds to supply. BBB's response was to raise fares from $0.50 per ride (the old dial-a-ride fare) to $1.50 per ride as a standard fare, and $0.75 for low-income residents.

For paratransit providers interested in partnering with a TNC, one of the primary challenges has been ensuring that there exist wheelchair accessible vehicles (WAVs) that users can call. One of the takeaways from my interviews is that agencies have so far adopted a range of methods in response to the lack of WAVs. A full assessment of the efficacy of each method is beyond the scope of this paper, but it is worth briefly describing several of the principal methods, along with their strengths and weaknesses.

In the Santa Monica case, BBB chose to retain two of the agency's wheelchair accessible vans, which can be called by riders who need a vehicle outfitted with a wheelchair lift (something that Uber and Lyft generally do not provide). This is a pragmatic method that allows the agency to enter into a partnership with a ride-hailing company, while still providing a wheelchair accessible option for riders who need it. The disadvantage is that riders who do need a WAV are still left with the older dial-a-ride service, rather than the more responsive TNC service. The upside is that BBB is able to better serve its many elderly and paratransit users who do not need WAVs.

The MBTA is trying a different means to ensure that TNCs provide sufficient WAVs. Since 2016, the MBTA has partnered with TNCs to supplement the MBTA's standard paratransit service, known as the RIDE. The MBTA's TNC partnership serves 2,000 active customers, for an average of 20,000 trips per month. This amount, while significant, represents only about an

eighth of the total paratransit rides that the MBTA provides, with many riders continuing to opt for the traditional RIDE vans.

While the MBTA could have continued to rely solely upon its fleet of RIDE vans to serve riders who need WAVs, it has instead opted to try to financially incentivize its TNC partners—Uber, Lyft, and Curb, the TNC for local taxis—to provide their own WAVs. This incentive is tied to a dedicated funding source. In Massachusetts, all TNC rides are subject to a twenty-cent fee per ride.[125] The MBTA successfully angled for the state to dedicate a quarter of the revenues from that fee to give incentive payments to TNCs that operate WAVs. As part of the program, the MBTA gets information on the number of WAVs that TNCs have on the road, and then pays the company $24 for each hour that a WAV is on call.

This form of incentive regulation has some precedent. Historically, the MBTA has included financial incentives—both bonuses and penalties—when it contracts out for paratransit service. These incentives are tied to performance standards, such as the percentage of trips that are completed on time.[126] The new incentive payments build on the older versions, but also go beyond what was previously possible. For example, the MBTA now receives much more fine-grained, real-time data on the numbers and locations of WAVs. While so far the MBTA has provided a blanket payment for all WAVs on the road, in the future, it may be able to vary its incentive payments to help address a lack of WAVs if certain neighborhoods within the MBTA's large service territory are being underserved by WAVs.

[125] *See* Zeninjor Enwemeka, *Mayor Walsh Wants to Increase Fees on Uber and Lyft Rides*, WBUR (July 23, 2019), https://www.wbur.org/bostonomix/2019/07/23/boston-walsh-uber-lyft-fees-legislation (describing the fee).
[126] Massachusetts Bay Transportation Authority, *Request for Proposals for ADA Paratransit Services* (July 10, 2013), https://bc.mbta.com/business_center/bidding_solicitations/pdf/RFP%2092-13%20The%20Ride%20North.pdf.

Whether the MBTA's incentive payments are an effective method of inducing TNCs to provide WAVs remains to be seen, but these incentive payments represent a novel way to combat the problem of a dearth of WAVs in TNC fleets.

LA Metro opted to take yet another path. Rather than providing their own WAVs (as BBB has done), or relying upon incentive payments (as the MBTA has done), LA Metro negotiated a contract with Via that places the onus on Via to ensure that riders using the app have access to WAVs. LA Metro is thus not micromanaging the supply of WAVs, but rather making it one of Via's responsibilities to manage. As part of the contract, Via can either directly provide WAVs, or sub-contract with another company that is able to provide them. Via initially chose the latter option, sub-contracting with Access Services, the paratransit provider for LA County.

The LA Metro partnership also highlights how transit agencies have incorporated innovative methods of service evaluation in their pilot program to improve accessibility. The Americans with Disabilities Act requires that people with disabilities receive levels of service that are comparable to riders without disabilities.[127] Consequently, when LA Metro and Via decided upon four Key Performance Indicators (KPIs) by which Via's performance would be measured, the parties agreed that Via must meet the same performance standards for both its wheelchair-accessible service and non-wheelchair-accessible service. These KPIs include the average wait time for customers and the average ratings that customers give for their trips.[128]

Despite providing a wheelchair-accessible option, Via received zero requests for a WAV in the first three months of its partnership with LA Metro.[129] The lack of requests prompted LA

[127] 49 C.F.R. § 37.121(a) (2019) ("[E]ach public entity operating a fixed route system shall provide paratransit or other special service to individuals with disabilities that is comparable to the level of service provided to individuals without disabilities who use the fixed route system.").
[128] LA Metro, *Metro's Partnership with Via: Quarter 2 Report* (Sept. 13, 2019), http://boardarchives.metro.net/BoardBox/2019/190913_Metro's_Partnership_with_Via_Quarter_2_Report.pdf.
[129] *Id*.

Metro and Via to engage in additional outreach to advertise the availability of WAVs. For example, staff members from Metro and Via gave presentations on the service at multiple senior centers and community centers, as well as sending out targeted mailers to paratransit riders who live within the three zones that form LA Metro's First-Mile/Last-Mile pilot. As a result of the outreach, the agency saw requests for WAV rise from 0 to 10 rides per week and finally 20 rides per week at the end of the last reporting-quarter.[130]

Dallas Area Rapid Transit (DART) has taken a fourth approach to accessibility in its TNC partnerships, opting to tackle different accessibility issues in phases. In the fall of 2017, DART first launched a small paratransit partnership with Lyft. Recognizing that Lyft vehicles in the Dallas area didn't yet provide wheelchair-accessible service, DART intentionally selected a first cohort of paratransit users for the pilot program who didn't require WAVs. The agency started with a small group of 8 paratransit users before expanding to 160 riders.[131] The agency engages in a vetting process to ensure that participants in the pilot program understand some of the limitations of Lyft's current service, such as the lack of WAVs and the fact that drivers will not be trained specifically in how to assist people with disabilities.

The agency has found that the service has been very popular, particularly among riders with visual impairments. Compared to the previous dial-a-ride service, the Lyft partnership allows riders to book rides spontaneously, and reduces some of the scheduling conflicts that had previously hampered the service.

The next challenge for the agency is to bring WAVs into this on-demand paratransit pilot program, a challenge that the agency says it will tackle in the next phase of the pilot. This

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[130] *Id*.
[131] *Dallas Area Rapid Transit (DART), Lyft, and MV Transportation Partnership for On-Demand Paratransit Service, 2017*, Shared-Use Mobility Center (Dec. 2017), https://learn.sharedusemobilitycenter.org/overview/dallas-area-rapid-transit-dart-lyft-and-mv-transportation-partnership-for-on-demand-paratransit-service/.

approach of working in phases has some merit, as well as drawbacks. On the positive side, bringing riders along in successive phases allows the transit agency to work out kinks in technology and enables as many users as possible to take advantage of new forms of service, even as more difficult challenges—such as incentivizing TNCs to provide WAVs—continue to pose hurdles. The downside is that not all paratransit users are able to immediately benefit from the new TNC service. But when it comes to transit agencies exploring and testing new technologies, there may be much to be gained by adopting a learning-by-doing approach, provided that there is in fact a plan (and funding) to tackle more difficult accessibility issues.

There has not been across the board success in improving the accessibility of TNC services. One agency, for example, formed a First-Mile/Last-Mile partnership with a TNC a couple years ago. Because the TNC doesn't provide WAVs, the agency contracted with a separate company to provide them. While the partnership now supplies several thousand trips per month, the agency hasn't yet received any requests for a WAV. Thus, while the intent of contracting with a wheelchair-accessible provider may have been to ensure that people of all physical abilities could participate in the new, demand-response program, the lack of usage suggests that some feature of the program—either its design, or the marketing and awareness around the program—has problems that need fixing.

Nonetheless, while not every partnership has produced successful innovations, when viewed as a group, the suite of partnerships as a whole has produced a diverse set of approaches for improving accessibility. These range from different methods of procurement (e.g. working with pre-existing providers of accessibility services vs. requiring every TNC to provide its own WAVs), to new means of identifying disparities in service (e.g. LA Metro's use of four Key Performance Indicators), to new ways of redressing disparities when they've been found (e.g. the

MBTA's incentive payments for WAVs), to different methods of iterating pilot programs to improve accessibility (e.g. DART's phasing approach to tackling accessibility issues). Not all of these methods may prove successful over the long run. However, to the extent that one of the goals of these pilot programs was to produce new understandings for furthering accessibility, it seems credible to say that there has already been some success in achieving that goal.

E. Muted Responses: Title VI and the Executive Order on Environmental Justice

Relative to the Americans with Disabilities Act, there has been much less attention and innovation with respect to two other civil rights regimes: Title VI and the Executive Order on Environmental Justice (EJ Order).

In its initial guidance on TNC partnerships, the Federal Transit Administration made clear that these two civil rights requirements applied to TNC partnerships.[132] However, the bulk of energy around Title VI and the EJ Order have focused on only two limited measures: providing an alternative payment option for people without debit or credit cards, and providing a call-in center so that people without smartphones can summon a ride on Lyft, Uber, or Via. These two design features may be beneficial, depending on the program in question. For example, one agency official mentioned in an interview that the call-in option had been useful because the agency serves riders who speak many different languages, and translators at the call-in center were able to assist people who were having difficulty using the app.

However, in other cases, providing a call-in center or an alternative method of payment may yield more theoretical than actual benefits. One agency official explained that although the agency ensured that the TNC with which it contracts has a call-in center, over 95% of riders used

[132] FTA Dear Colleague Letter, *supra* n.4.

the app to call a ride. Of those who did call the phone line, many did so just to learn more about the program, and not because they lacked an app-based smartphone with which they could order a TNC ride.

Likewise, some agencies have provided an option for riders to purchase pre-paid debit cards from the transit agency, which can then be used to electronically pay for a TNC ride.[133] While in theory this is a helpful work-around for people without bank accounts, it remains unclear if riders will be willing to undergo the additional hassle of procuring pre-paid debit cards in order to utilize a TNC partnership. One official I spoke with mentioned that the agency was currently thinking through how to integrate TNCs with the agency's pre-existing fare card system, so that users wouldn't have to set up alternative payment methods but instead could use the agency's regular fare cards to pay for a TNC ride.

In the interviews I conducted, the provision of call-in centers and alternative forms of payment were the primary Title VI and EJ considerations that transit officials mentioned in conjunction with service design, though two other examples are important to mention. First, as we've seen in Santa Monica, at least one transit agency has created a separate fare category for low-income riders. After Big Blue Bus raised the fares on its paratransit service from $0.50 per ride to $1.50 per ride, the agency created a separate $0.75 fare category for verified low-income users, a measure that seems helpful in advancing economic inclusion. Two other agencies have created services that explicitly target late-night workers, who often face the challenges of working night shifts that require commuting to work when public transportation is either unavailable or greatly reduced.

[133] *See* American Public Transportation Association, *Transit and TNC Partnerships*, https://www.apta.com/research-technical-resources/mobility-innovation-hub/transit-and-tnc-partnerships/ (describing one such arrangement in San Bernardino, CA).

Detroit's Night Shift program provides one example.[134] In Detroit, the City's buses don't operate between the hours of 11pm and 5am, with the exception of ten bus corridors on which the City operates 24-hour service. In 2018, Detroit partnered with Lyft to provide a First-Mile/Last-Mile service between the hours of 11pm and 5am. As part of the partnership, users can receive a $7 credit towards the cost of taking a Lyft ride.

In the first iteration of the partnership, Detroit provided this subsidized First-Mile/Last-Mile service along only one of the City's ten 24-hour bus corridors. In the initial weeks after the program was launched, only a handful of users made use of the $7 credit. With low ridership numbers, the City reached out to potential riders who had inquired about the service but had not in fact used it. From these interviews, the City heard that many potential riders had been unable to use the service because it was available on only one bus line. As a result, the City decided to expand the program to all ten of its overnight bus routes. Ahead of service expansion, the City also placed advertisements on its buses that explained the program, which the City credits as a major reason for the subsequent ridership growth.

Providing a dedicated, late-night service is an example of a design that addresses a known problem for low-income workers: the absence of public transportation to get to and from late-night jobs. This program, however, is one of the few that had a specific target of reaching low-income riders.

While the above examples demonstrate that there has been some limited attention to *designing* programs to promote the ends of Title VI and the EJ Order, there has been almost no attention to *evaluating* programs to see if they have been disproportionately used by certain riders, or to see if different riders have received different levels of service or pricing. This is

[134] City of Detroit, *Night Shift*, https://detroitmi.gov/departments/detroit-department-transportation/bus-schedules/nightshift.

surprising, given that impact assessments have historically formed a core feature of civil rights law in the context of fixed route transportation. Beyond the legal requirements of complying with civil rights regulations, understanding the demographics of who is using these new services would seem to be an important component of any good pilot program. If the aim is to learn from experimental programs, part of the experiment would surely be to understand who might be using the services, and to identify potential disparities that might exist by race, income, or geography.

The lack of service evaluations aimed at understanding the racial and economic justice implications of these services is particularly stark given the efforts that some agencies have made to measure disparities in service for people with disabilities. For example, LA Metro's Key Performance Indicators or the MBTA's tracking of the availability of WAVs indicate that many transit agencies have the data, the desire, and the capacity to identify potential disparities in use when it comes to disability access.

The City of Detroit provides one example of an agency that has tried to understand the demographics of its ridership, but the case also illustrates some of the challenges that agencies face when working with TNCs. In its initial discussions with Lyft, Detroit asked to receive the phone numbers of customers who used the publicly subsidized service, so that the City could follow up with riders to conduct interviews and better understand how people were using the service. Lyft, however, was reluctant to provide the City with phone numbers for customers. In the end, the City developed a workaround. Customers who wanted to receive a subsidized ride would have to text a City-operated phone number, which would then automatically supply them with a coupon code that riders could use in the Lyft app. Because riders have to text the City to

receive a coupon code, the City receives their phone numbers, and is able to follow up later with requests for interviews about the riders' experiences.

These interviews have provided valuable information, both on ways to improve the service (such as by expanding the areas where people could use it), and on who the City's riders were. The City confirmed, for example, that most people who were using the late-night service were indeed riders coming to or from late-night jobs. The interviews also produced stories that testified to some of the benefits of the program. One rider said that the program may have helped save their life. Before the pilot program, the rider would have to walk long distances from the bus to their home, and the rider said that they had been jumped multiple times on the walk home. Now, with the City's subsidized First-Mile/Last-Mile program, the person was able to get straight from the bus to home, a significantly safer trip.

Detroit's interviews are an example of learning about ridership, not through quantitative data analyses, but through more qualitative methods. This kind of information can play an essential role in assessing whether programs are advancing environmental justice.

However, given the large amounts of data that TNCs collect on ridership, it would be helpful as well to conduct more quantitative analyses. For agencies like the LA Metro and MBTA, which have shown the ability to conduct regular quantitative analyses to understand disparities based on disability, it is surprising that similar efforts haven't been made to identity potential disparities based on income and/or ethnicity. The next section discusses possible explanations for why there has been greater attention to both service delivery and evaluation when it comes to the Americans with Disabilities Act than there has been for Title VI and the Executive Order on Environmental Justice.

The limited innovations with respect to Title VI and the EJ Order—such as call-in centers—may be helpful, but they certainly don't account for the full range of possible Title VI and EJ concerns. As discussed above, the demographics of regular TNC ridership, the use of algorithms that set prices and service quality in part based on geography, and the other design decisions that agencies themselves are making (such as where to draw geofences) all present other sources of potential Title VI and EJ problems. And there may be other areas of concern that transportation planners have not yet identified. Given the legal requirement to protect against discrimination on the basis of race and income, why have transit agencies done little to measure potential disparities in these services based on race and income? The next section explores some of the reasons why this may have been the case.

IV. What Factors Might Explain the Different Levels of Compliance (and Innovation) for the ADA vs. Title VI & the EJ Order?

The interviews discussed above demonstrated a range of innovative approaches to measuring and addressing disparities in service based on accessibility, while also showing comparatively less attention on the part of transit officials and regulators to potential disparities based on race and income. All three forms of possible disparities are covered by federal civil rights laws through the Americans with Disabilities Act, Title VI, and the Executive Order on Environmental Justice. And, in the past, transit agencies (particularly large agencies) have been required to proactively measure and address disparities based on income and ethnicity as part of the Title VI/EJ compliance process for fixed-route transportation. So why, in these partnerships—which often combine fixed-route service with on-demand flexible services—has the ADA tended to garner greater attention and innovation than Title VI or the Executive Order on Environmental Justice?

This section discuses several possible reasons for the relative differences in attention and regulatory innovation. Not all of the reasons covered in this section are applicable to every transit agency. Moreover, some seem to have greater merit than others as explanatory factors for the difference in attention between the ADA and Title VI/EJ Order. Even some challenges with the Title VI/EJ compliance process that may be real—and thus serve as plausible descriptive accounts for why Title VI and the EJ Order have not gotten as much attention—may still be worth confronting and overcoming from a normative perspective, given the importance of the economic and racial justice in public transportation.

A. The Size and Salience of Civil Rights Concerns

One reason that the ADA may have gotten greater attention than Title VI or the EJ Order is that accessibility issues do in fact pose more significant problems in these partnerships than potential disparities based on ethnicity or income level. For example, it is clear that a rider who needs a wheelchair lift cannot get by in the typical Uber ride, while it is entirely possible that TNC partnerships are not only non-discriminatory, but could in fact be proactively advancing racial and economic equity by reaching new riders who may previously not have had access to any meaningful public transportation. Thus, one reason that Title VI and environmental justice have not gotten the same level of attention may be that transit officials understand from experience, intuition, or more anecdotal evidence that there are not in fact Title VI or environmental justice issue worth pursuing. This provides a plausible, though not fully satisfying explanation. If there are in fact no significant Title VI and EJ issues—if, for example, both low- and high-income riders are using these partnerships equally—then that is a fact worth proving. Demonstrating that these partnerships are serving all riders equitably would be a very helpful

finding for the industry, likely garnering greater support for these partnerships among key transit advocates.

However, it is also plausible that TNCs will continue to disproportionately serve higher-income users, depending on the structure and size of the public subsidy, or how the TNC partner operates its service. It is also entirely possible that decisions made by transit agencies, such as where to draw a geofence, could have unintentional and adverse effects on certain groups of riders. Either way, the equity implications of TNC partnerships—whether large or small—are worth understanding.

Another reason that transit agencies and the Federal Transit Administration may have put greater attention into the ADA has to do with the relative *salience* of accessibility issues, which in turn is in part the result of effective organizing by disability advocates. Over the last 5 years, disability rights groups have sued Uber and Lyft more than a dozen times. As discussed in Part I, the ADA requires private companies to provide ADA-compliant transportation if they serve as public accommodations, as Uber and Lyft do. In a series of high-profile class-action lawsuits, disability rights groups have sued both companies, arguing that Uber and Lyft have failed to comply with the ADA by, among other infractions, failing to incorporate wheelchair-accessible vehicles in their fleets, and by failing to adopt policies that permit people to bring service animals with them in Uber and Lyft rides.[135]

These lawsuits, many of which are still making their way through the courts, have attracted significant attention from the media, and helped increase the salience of accessibility issues in TNC services. This in turn may have prompted regulators and agency officials to take

[135] *See* Molly Taft, *Why Can't Uber and Lyft Be More Wheelchair-Friendly*, CityLab (Dec. 11, 2018), https://www.citylab.com/transportation/2018/12/ride-hailing-users-disabilitiies-wheelchair-access-uber/577855/ (describing the lawsuits and accessibility issues with TNC services).

proactive steps to make TNC services more accessible in the context of subsidized partnerships with public agencies.

B. FTA Guidance: Inputs vs. Outcomes

Another explanation for the differences in attention and innovation may have to do with the FTA's adoption of two very different approaches to the ADA on the one hand and to Title VI/EJ on the other in guidance to public transportation agencies.

In 2016, then Secretary of Transportation Anthony Foxx issued a "Dear Colleague" letter concerning partnerships with Uber and Lyft. The letter set out basic principles with respect to Title VI and the ADA, and embodied much of the regulatory enforcement to come.[136] In the letter, Secretary Foxx set a clear expectation that compliance with the ADA must be based on seven performance standards. To comply with the ADA, transit agencies would have to ensure that people with disabilities received the same level of service, as measured by the seven performance standards, which include criteria such as wait times and fares. These criteria have their roots in longstanding regulations concerning the ADA's equality directive for public transportation.[137]

In contrast to this performance-based approach, the Secretary's letter framed Title VI compliance in terms of only two inputs: providing call centers and providing an alternative means of payment for people without bank accounts.[138] While the letter contains seven paragraphs discussing issues dealing specifically with the Americans with Disabilities Act, there

[136] FTA Dear Colleague Letter, *supra* n.4.
[137] *See* Federal Transit Administration, *ADA: Frequently Asked Questions*, https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/frequently-asked-questions (explaining the comparability requirement in public transportation).
[138] FTA Dear Colleague Letter, *supra* n.4. at 1.

are only two sentences devoted to Title VI-specific issues. After reminding transit agencies of their general obligation to comply with the ADA and Title VI, the letter states:

> For example, TNC services typically rely almost exclusively on the use of a smartphone linked to a credit or debit card to arrange for service, which presents a significant barrier to lower income and limited English proficiency individuals who do not own a smartphone and/or who do not have a credit card or bank account. Given that communities of color are disproportionally low-income, each public transit agency has an obligation under Title VI to ensure that alternative methods of both payment and reservations are available.[139]

The two issues that Secretary Foxx highlighted—providing alternative payment methods and providing a method of reserving a ride that does not require a smartphone—are both potentially important. But they do not by themselves exhaust the potential Title VI issues of these partnerships, which, as discussed in Section III.A, include decisions of where to draw geofences, questions of whether all neighborhoods receive the same prices and level of service, and other problems that may be as simple as lack of awareness or outreaching concerning the program.

Perhaps most importantly, Secretary Foxx's letter didn't direct agencies to track who used the services or to ensure that there were equal outcomes across different groups, as the Secretary did when explaining the requirements of the ADA. The focus on only two narrow inputs allowed transit agencies to claim to be in compliance—or at least adequate compliance—with Title VI and the EJ Order after only taking two limited steps.

The letter set the stage for the FTA's future enforcement of Title VI in the context of these partnerships. In the interviews I conducted, multiple officials stated that their understanding was that the FTA was not at this time requiring them to assess whether these partnerships were disproportionately serving high-income or white riders or neighborhoods.

[139] *Id*.

In its public communications, the FTA has continued to affirm the general principle that transit agencies must ensure that their programs don't disproportionately and adversely affect low-income riders or riders of color. But it has not taken steps to oversee agencies or foster norms and expectations that might have led transit agencies to do more to ensure that they are in fact meeting their civil rights obligations. Moreover, as discussed in the next section, the FTA has also permitted transit agencies to enter into partnerships in which agencies bargain away the right to most ridership information, including geographic information on the origins and destinations of the trips. This endorsement of transit agencies providing services without knowing who uses them may be based on a long-term view that such an arrangement is in the best interest of the transit industry as a whole. But it is also in many ways at odds with the FTA's statements that transit agencies must continue to ensure that the benefits and burdens of their services are distributed equally.

C. Weakening of Expectations to Collect, Assess, and Publicize Information on Ridership Usage and Disparities by Race and Income Level

Civil rights scholars have often praised the practice in transportation of proactively studying service changes to determine if the changes might have a disparate and adverse impact on low-income riders and riders of color.[140] Historically, FTA regulations haven't required these studies for demand-response services, including paratransit programs. Nonetheless, transit agencies are required to make assurances that their demand-response services comply with Title VI,[141] and to monitor sub-contractors who operate demand-response services, so as to ensure that the sub-contractors are also in compliance with Title VI.[142]

[140] *See, e.g.*, Johnson, *supra* n.8 at 1368.
[141] FTA Title VI Circular, *supra* n.9 at ch. III § 2.
[142] *Id.* at § 12.

In the context of partnerships with TNCs, one might have hoped that the FTA would have encouraged transit agencies to conduct the kind of proactive equity assessments that have previously been required for fixed-route services. Unlike past demand-response programs, TNCs are already in the business of collecting large amounts of information which they use to monitor the services they provide. The large amount of available data can make it much easier to gain insights into ridership usage and the quality of service. Indeed, as we have seen, several transit agencies have already used this data to help identify disparities in service based on access to wheelchair-accessible vehicles.

But so far, the new technologies and available data haven't advanced our understanding of how these partnerships may or may not contribute to racial and economic justice. Instead, either transit agencies have not bargained for (and the FTA has not required) the agency to receive data on ridership usage that would allow it to conduct such assessments, or else the agency has received the relevant data that it would need, but has chosen not to conduct and publish any form of race-conscious or income-conscious equity assessment.

In the interviews I conducted, transit agencies fell into both categories. For example, the Pinellas Suncoast Transit Authority (PSTA), one of the first agencies to enter into a TNC partnership, initially received only a monthly invoice from Uber which contained information on the total number of riders who had taken the agency's "Direct Connect" First-Mile/Last-Mile pilot program, but contained no other information on, for example, the locations of trips. In contrast, some other agencies have negotiated contracts in more recent years that guarantee them access to much larger quantities of information. The MBTA and LA Metro, for example, receive trip-level information from their TNC partners that includes the cost, timing, duration, and latitude and longitude of trips. LA Metro makes use of this information in their quarterly reports

on the state of the pilot program, demonstrating the full capability to conduct service evaluations using the data provided by their TNC partner.

However, despite some agencies negotiating for the rights to both collect and release aggregated ridership data, no agency has to my knowledge publicly released an equity assessment that analyzes potential disparities in use based on ethnicity or income. Nor has any agency released the underlying data (aggregated to protect anonymity) that would allow researchers to conduct such an assessment.

D. Institutional Capacity and "Departmentalization"

Institutional capacity may provide another reason why some transit agencies haven't yet studied potential Title VI and environmental justice issues (beyond the minimum compliance asked for by the FTA). Some of the agencies involved in TNC pilot programs are small transit agencies that have formed the partnerships in part to make up for revenue losses that are already forcing service cuts. Limited staffing may certainly comprise part of the reason why some agencies haven't done more data-gathering or analyses to investigate possible Title VI and EJ issues. Of course, other agencies are well-staffed and are receiving multimillion-dollar grants from the FTA to conduct these pilot programs, so capacity may not provide a universal answer. Nor do capacity issues fully explain why agencies would disproportionately tackle ADA issues, but not Title VI/EJ issues.

A separate but related reason has to do with the separation of different planning functions across different departments within a transit agency. The interviews I conducted were usually with one of the point people involved in designing and implementing the TNC partnership. In several of the interviews, the transit official or officials in charge of the TNC partnership

mentioned that Title VI issues were handled by someone else in another department. By contrast, ADA issues tended to be handled much more directly by the people directing the partnership.

This separation of functions is understandable but unfortunate. How and where to assign Title VI responsibilities is an important question. When viewed simply as an issue of regulatory compliance, Title VI can be seen as a distinct issue for legal specialists to handle, or even simply a box to be checked, rather than a holistic imperative to engage in inclusive service planning or to evaluate programs to identify worrisome trends. Yet despite the hope that Title VI would be integrated more fully in everyday transportation planning, it remains true than in many departments, civil rights considerations come into the picture (if they do at all) only as legal compliance issues to be occasionally handled by an official in the General Counsel's office or Office of Civil Rights, and not as part of regular service planning and operations.

E. Views of Title VI and the EJ Order as Impediments to Innovation

Another source of reluctance to implement Title VI and the EJ Order in a proactive and robust manner may be the view that Title VI serves as an impediment to innovation. As one official I spoke with said:

> Something as black and white as Title VI and as inflexible is difficult to immerse yourself in. It's very important, but it's difficult . . . So much of Title VI creates inefficiencies in an already inefficient mode of government. I don't want to take away from the importance of Title VI. But it's so stringent, there's no room for error.

The official's concerns resonate with a view of Title VI as not only creating unnecessary bureaucratic red tape, but also as simplistic. In this view, Title VI may harm equity and innovation by giving only binary answers like "good or bad" or "compliant/non-compliant" to complex questions of equity. One can imagine that in the early years of a

pilot program, a transit agency official might be worried that a negative result from an equity analysis could lead the FTA to needlessly interfere with a program, or else cause backlash from the media and public opinion.

These concerns are worth challenging as both a descriptive and normative matter. As a descriptive matter, the experience of transit agencies with the ADA in these partnerships demonstrates that implementing civil rights laws hasn't in fact been understood in such simple terms by transit agencies, the FTA, or disability advocates. Just because a service isn't ADA-compliant does not mean that anyone involved has viewed the service as worth shutting down. Instead, the emphasis has been on acknowledging and measuring deficiencies, and then taking steps to rectify them. The MBTA, for example, is aware that paratransit riders who require a wheelchair-accessible vehicle still don't receive the same level of service as those who don't need a WAV. But this is a problem that the MBTA is actively trying to tackle. In a similar vein, Dallas Area Rapid Transit has acknowledged that it faces multiple accessibility challenges with its paratransit service, and it has chosen to tackle successive problems in phases. These and other examples demonstrate that improving accessibility is not an all-or-nothing proposition, but rather an experimental process of design, learning, and improvement.

Likewise, Title VI need not be viewed as a simple binary of either compliance (and an agency need do no more) or non-compliance (and the agency should shut down a program). Instead, transit agencies should approach potential racial and economic disparities in the same ways that they have been tackling accessibility issues: through an iterative process of testing, learning, and improving their services. It isn't clear as a descriptive matter that advocates or the FTA would view early-stage problems with these

partnerships as fatal to their future. Particularly when learning how to utilize a new mode of transportation, it is necessary to provide room for testing and learning.

But learning how to implement civil rights regimes and ignoring them entirely are two separate things. So far, when it comes to Title VI and the EJ Order, the prevailing tendency seems to be to sidestep whatever difficult questions these civil rights regimes may pose for TNC partnerships, rather than acknowledging the challenges involved in applying them to novel partnerships and taking progressive steps to give them greater force.

Conclusion

Over the last four years, there has been an active conversation within the transportation community about the strengths and limitations of partnerships with TNCs. Despite four years of experience across several dozen programs, much remains unknown about whether these partnerships will actually help improve mobility. Some of the unknowns involve uncertainties about the long-term financial viability of these partnerships. Researchers have begun to tackle some of the unknowns around these partnerships by surveying their different forms and documenting the operational challenges that TNCs face in implementing them.

This thesis has aimed to contribute to the growing conversation around TNC partnerships by examining one particular facet of these partnerships: the ways in which transit agencies have furthered their obligations to provide service equitably to all users, without discriminating on the basis of race, class, or disability. This question is important, both because it raises legal issues that go to the heart of the mission to make transportation more inclusive, and also because it serves as a window into the larger question of whether private TNCs will in fact be willing to take the steps necessary to serve as agents of the public interest. One of the transformations that must occur for TNCs to provide not just "mobility as a service" but also mobility as a *public* service is the requirement that TNCs operate transparently and equitably.

This thesis provides some indication that transit agencies and their TNCs partners are willing to meet these challenges in the context of providing paratransit and ADA-compliant transit services. While successes have not been universal, many transit agencies have taken seriously the need to provide accessible transportation, and they have sought to develop innovative methods for mandating or incentivizing TNCs to provide service to people with disabilities. There appears to have been much less attention on the part of transit agencies and

regulators to potential barriers and inequities that may exist on the basis of race, income, and national origin. If these partnerships continue to evolve, transportation advocates and regulators should press agencies to devote more time and attention to understanding and addressing the issues of environmental justice and racial equity that may come up in these partnerships. Doing so will enable transit agencies to better harness the power of innovation in the service of equity.

Appendix A. Semi-Structured Interviews — List of Questions

A. Overview of the program
    a. Have you ever had a partnership with a TNC like Uber or Lyft?
    b. When did the partnership start? Is it still ongoing?
    c. What motivated the creation of this partnership? Who was involved?
    d. How does the program work?
        i. What services did the TNC provide?
        ii. Did the agency subsidize those services?
            1. If so, how was the size of the subsidy determined?
            2. Who received the subsidy?
    e. Formation of the program
        i. Did the partnership only add a new service, or was the intention to replace an existing service (or some part of it) with the new partnership?
    f. Do you feel like it's been a successful program? Why or why not?
B. Data
    a. What kind of data did you collect or receive?
        i. Did you collect your own data (e.g. ridership surveys), or rely upon data provided to you by the TNC?
    b. Did you find it difficult to get data from the TNC? Were they open about sharing data on who was using the service? Are you allowed to publicly share the data you received?
    c. How specific/granular was the data you received? Did you receive individual trip data, or aggregated data? Did you receive location data on origins & destinations?
    d. Did you receive any demographic data on who was using the service?
C. Usage
    a. How many people used the program?
    b. How much money did the agency provide (per ride and in the aggregate)?
D. Equity Analyses
    a. Did you conduct an equity analysis?
        i. If so, how did it work?
        ii. What data did you use? (ridership surveys, census, etc.)
        iii. What were the results of your analysis?
        iv. Did you encounter any challenges in creating your equity analysis?
            1. How did you handle the flexible nature of these services?
            2. Did you look only at the financial subsidy, or whether certain users had better experiences (e.g. faster responses times, etc.)?
    b. If you did not conduct an equity analysis, why not?
    c. How, if at all, did you discuss the equity implications of these partnerships?
    d. What guidance, if any, did you receive from the FTA on what analysis you might need to conduct to demonstrate compliance with Title VI and the EJ order on environmental justice?
    e. Do you think conducting an equity analysis is important for this kind of partnership?