PARTNERS IN TRANSIT

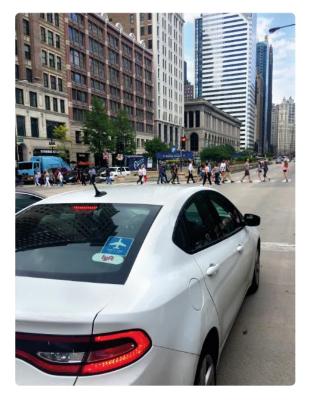
A Review of Partnerships between Transportation Network Companies and Public Agencies in the United States

BY JOSEPH P. SCHWIETERMAN*, MALLORY LIVINGSTON & STIJN VAN DER SLOT AUGUST 1, 2018





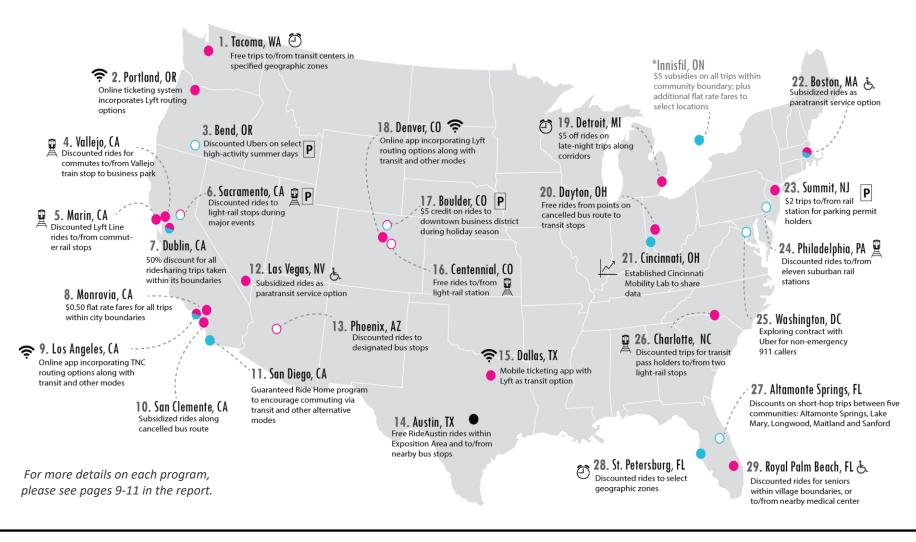




2018

PARTNERSHIPS BETWEEN TRANSPORTATION NETWORK COMPANIES AND PUBLIC AGENCIES

Past and Present



- Lyft partnership (O if no longer active)
- Uber partnership (
 if no longer active)
- ► Lyft + Uber partnership (○ if no longer active)
- Other active partnership



Program designed to alleviate parking shortages



Program allowing for integration of TNC services in route-planning app



Program catering to paratransiteligible populations and/or the elderly



Program primarily designed to promote TNC connections to rail lines



Program for increased data-sharing opportunities



Program limited to select times of day and/or days of the week

I. INTRODUCTION

Municipal governments, metropolitan planning organizations, and transit agencies around the country are embracing the idea that greater synergy between transportation network companies (TNCs) and transit services can enhance mobility. Several dozen public bodies have forged partnerships that leverage the potential for transit operators and TNCs – predominately Lyft and Uber – to work together to resolve transportation challenges.

These initiatives are backed by a growing body of research showing that ridesharing and transit tend to be used in different ways by most travelers, making them complementary rather than competitive in nature.¹ At the same time, an apparent uptick in competition between these modes, heralded by new lower-priced services such as Lyft Line and UberPool, appears to be a similarly motivating force. Recent declines in transit ridership have been shown to be partially attributable to ridesharing's growing popularity, thus, fueling the desire for experimentation with new methods to stimulate bus and rail patronage.²

Most partnerships are motivated by a desire to improve mobility in areas in which transit options are inadequate or nonexistent, or where the supply of parking is insufficient. Nonetheless, some initiatives also reflect a desire to bolster the "brand image" of transit, address budgetary shortfalls, or promote economic development. Deficiencies in taxicab service may also be a factor: A study by the University of South California shows ridesharing can also help resolve inequities created by the uneven distribution of taxicabs, particularly by servicing more impoverished communities in which cabs rarely roam.³

This report summarizes the status of twentynine partnerships between TNCs and public bodies around the United States designed to improve mobility, twenty-two of which are currently active. The analysis focuses entirely on initiatives that involve (or have involved) ridesharing services and excludes partnerships with *microtransit* operators such as Chariot and Via Mobility Services, which tend to operate larger vehicles.

For each partnership observed, the research team evaluated:

- i. when the programs were active;
- ii. whether they have been modified since their inception;
- iii. how the programs were financially structured; and
- iv. audits of program performance made publicly available.

The analysis drew upon the American Public Transit Association's Transit and TNC Partnerships webpage, an online source including some of the programs listed below. On page 9, readers will also find some additional details of these programs, including links to websites with information about budgets, average subsidies per trip, and traffic counts.

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II. BACKGROUND AND TYPOLOGY

As recently as late 2015, partnerships between public bodies and TNCs were largely nonexistent. By early 2018, however, more than two dozen were underway, with some already having been modified in response to traveler feedback. At the same time, only few of the country's largest transit bodies had entered into collaborative arrangements, perhaps due to the complexity of their operations and because their more extensive service coverage made partnerships seem less necessary.

We encourage readers to share with us information about emerging partnerships and corrections to any information provided below.

Most partnerships fit into one of these five categories:

- Incentives to broadly encourage connections between ridesharing and transit service or to fill gaps in the transit system through discounts and other financial incentives;
- Development of smartphone trip planning applications that encourage combining ridesharing and transit options on the same trip;
- Efforts to mitigate parking shortages or forestall the need for investments in parking lots in downtown districts, areas of public assembly, transit stations, and other locations;
- Programs to promote mobility for travelers with impairments, including the elderly and disabled, that serve as alternatives to conventional paratransit service; and
- 5. Specialty programs that *indirectly* promote transit use or the improvement of transit service, which run the gamut from initiatives to promote exchanging data to

"guaranteed ride home" programs for commuters using alternative transportation methods.

The analysis below excludes regulatory schemes intended to advance various public goals, which are more appropriately regarded as mandates rather than partnerships. For example, it does not include the Massachusetts law requiring ridesharing companies to disseminate data for public use or taxes on ridesharing to improve public transit systems. ⁵ Nor does it cover partnerships that are privately arranged and managed, such as those with real-estate developers or healthcare companies that are not motivated by broadly defined public goals. Initiatives focused primarily on promoting retail sales at shopping centers and downtown districts are also excluded.

III. PROGRAMMATIC HIGHLIGHTS

This section summarizes the five basic categories of partnerships and highlights notable initiatives that are part of each grouping (Table 1).

<u>Type I:</u> Incentives to broadly encourage connections between ridesharing and transit service or to fill gaps in the transit system through discounts and other financial incentives.

The 18 programs in this category make this strategy the most pervasive. All involve monetary expenditures by government or quasi-government entities to provide travelers free or discounted ridesharing trips. The programs can be divided into three subgroups:

<u>Group A</u>: Programs with fare incentives available between all points in a community at all times

This first subgroup of partnerships consists of free or subsidized trips universally provided

Table 1: Typology of Partnerships between Ridesharing Operators and Public Bodies Designed to Promote Mobility

	Program Type	Programs in this Category	Example of Large-Scale Program in Category
1.	Programs that broadly encourage TNC/transit connections or enhance mobility in areas poorly serviced by transit	Group A: Discounts between all points Altamonte Springs - Sanford, FL* Dublin, CA Monrovia, CA	Monrovia, CA offers \$0.50 flat rate fares on all Lyft trips that start and end within city boundaries.
		Group B: Discounts for particular trips during both peak and off-peak times Austin, TX Philadelphia, PA* Centennial, CO* Phoenix, AZ* Charlotte, NC St. Petersburg, FL Dublin, CA San Clemente, CA Dayton, OH Tacoma, WA Marin, CA Vallejo, CA	Austin, TX offers free RideAustin trips within its Exposition Zone, home to many tech workers.
		Group C: Discounts for particular trips only at off-peak times: Detroit, MI St. Petersburg, FL Tacoma, WA	Detroit, MI provides \$5 fare reductions on weekday Lyft rides to/from its 53 Woodward corridor between midnight and 5am.
2.	Programs to develop smartphone apps that encourage combining transit and ridesharing	Dallas, TX Denver, CO Los Angeles, CA Portland, OR	Portland, OR's TriMet has fully integrated Lyft service options into its "RideTap" search tool.
3.	Programs to address parking shortages or to forestall the need for more investments in parking	Bend, OR* Boulder, CO* Sacramento, CA* Summit, NJ	Summit, NJ , offers \$2 Lyft trips to/from its commuter-rail station for parking permit holders.
4.	Programs providing service to seniors or alternatives to conventional paratransit service	Boston, MA Las Vegas, NV Royal Palm Beach, FL	All seniors and travelers with disabilities in the Boston area receive a limited number of discounted TNC rides per month.
5.	Specialty programs that indirectly promote transit use or transit improvements	Cincinnati, OH San Diego, CA Tacoma, WA Washington, DC**	The "iCommute" program in the San Diego area allows residents to periodically request a rideshare or taxi home in case of illness or emergency.

^{*}Program no longer active.

^{**} Program not yet in effect; discussions ongoing.

within a municipality or group of municipalities. These are not designed primarily to promote connections with transit service but instead to provide door-to-door transportation between all points.

Monrovia, CA's partnership with Lyft is among the most prominent examples of this type. This subsidy program reduces the cost of using Lyft to \$0.50 for all trips starting and ending within the city's boundaries (see Appendix III, Figure 2). Monrovia, a city of 37,000 that is contiguous with Pasadena, created this program to improve mobility in the midst of rapid employment growth and in response to concerns that its dialar-ride program was insufficient and overly costly (averaging around \$25/ride). Since the program's introduction, visitors and residents have reportedly taken more than 53,000 subsidized rides.

Another highly-publicized program is located across the border in Ontario, Canada. The town of **Innisfil, ON** has partnered with Uber in place of a traditional transit system. The program, launched in March 2017, provides \$5 subsidies on all routes within Innisfil borders, as well as \$3 flat rate fares to select community locations such as the local library and community center. The city's average per passenger subsidy is \$5.62, a fraction of the \$33 per passenger subsidy estimated for bus rides.⁷

In the San Francisco Bay Area, **Dublin, CA** (population 60,000) offers 50% discounts, up to a maximum of \$5, on all Lyft trips within its municipal boundaries. This includes trips to its BART rapid-transit station.⁸

In Florida, the communities of **Altamonte Springs, Lake Mary, Longwood, Maitland** and **Sanford** offered 20% discounts on short-hop trips *between* and *within* their municipal boundaries. This cluster, having a cumulative population of about 150,000, created the collaboration to provide transportation at a lower cost than providing fixed-route bus services. Although the program ended in July, a new one is being explored.

<u>Group B</u>: Programs with fare incentives available for certain types of trips during both peak and off-peak hours

These programs limit subsidized rides to particular routes or areas, or to workers meeting specific criteria. However, the discounts are available at times most residents seek to travel, including peak periods. **Dayton, OH's** program – created in response to reductions in bus service – is among the most far-reaching, offering free Lyft rides between several hundred bus stops along designated transit corridors (see Appendix III, Figure 4). The Midwestern city has erected dedicated signage at the eligible bus stops.

The transportation authority in **Marin County**, in the San Francisco Bay Area, provides Lyft discounts on trips to five SMART commuter rail stations, including downtown San Raphael, the line's southern terminus.¹¹

San Clemente, CA, like Dayton, turned to ridesharing to replace bus service that had been canceled or diminished. Users traveling between bus stops pay the first \$2 while the city covers the remaining cost, up to \$9.12

Austin, TX's discount program is two-pronged, encompassing both free RideAustin trips within its Exposition Area (a district encompassing about eight city blocks that are home to many technology jobs) and those to/from two nearby Capital Metro bus stops. 13 Similarly, Charlotte, NC recently launched a pilot program with Lyft providing discounted rides to/from two Lynx light-rail stations that start/end within the designated geo-fenced area. 14 However, only those with a valid transit pass for the region's transit system are eligible.

Several partnerships are more narrowly focused, such as the Solano Transportation Authority's program for employees of select organizations who commute via the **Vallejo**, **CA** rail-passenger station, which has frequent Amtrak service to Oakland and Sacramento. ¹⁵ Rather than

publicizing a discount code, employees must call a service center to obtain program information.

A variety of programs have been discontinued, in some cases due to the planned termination of pilots with limited funding. Some were created explicitly to give agencies experience working with TNCs. The heavily publicized program of **Centennial, CO**, which offered free trips to its light-rail station, is a notable example. This program, which ended in 2017, stands out for having a publicly available performance <u>audit</u>. ¹⁶ **Phoenix, AZ** also had a large-scale pilot program, which ended in April. ¹⁷

The largest transit agency to have experimented with subsidized ridesharing for passengers in all age groups is the Southeastern Pennsylvania Public Transit Authority (SEPTA), which serves metropolitan Philadelphia and is ranked sixth in annual unlinked passenger trips among U.S. transit agencies during 2017.18 This agency had a pilot program with Uber, in which travelers received discounts of up to 40% when traveling to/from 11 commuter rail stations (see Appendix III, Figure 1). 19 These stations tended to have little feeder bus service and chronic parking shortages, diminishing the use of commuter trains to Center City. This program was not renewed at the end of the pilot in October 2017 in part due to concerns over the need for better data for evaluating its performance.

<u>Group C</u>: programs with fare incentives limited to off-peak times

Several programs limit discounts to times when transit service is poor or nonexistent. In May, **Detroit, MI** launched a program for late-night workers encompassing \$5 price reductions on Lyft trips to/from the 53 Woodward bus route.²⁰ This discount is only available weekdays between midnight and 5am.

In addition to more general discounts, the **Pinellas Suncoast Transit Authority** also offers a "Transportation Disadvantage" program, which includes providing low-income residents free

Uber rides between 9pm and 6am. Residents who qualify (i.e., live in Pinellas County, do not have access to a personal car, have a documented income at or below 150 percent of federal poverty guidelines, and have a job that begins or ends between 10am and 6am) can receive 25 free Uber or Lyft rides each month when they purchase a monthly bus pass. ²¹ Similarly, a pilot program in the **Tacoma, WA** area provides Lyft discounts to/from (or within) select geographic zones, with designated days and times for each zone.²²

Figure 1: Map of Pierce Transit's free Lyft offerings betwee various Tacoma-area neighborhoods and transit stops.

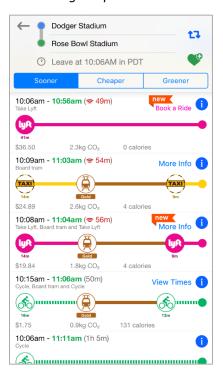


Type II: Programs to develop smartphone trip planning applications to encourage combining both transit and ridesharing on a single trip

Several public bodies have developed apps that allow travelers to more easily explore both ridesharing and transit options simultaneously while also encouraging them to make connections between these modes. **Dallas, TX's** mobile ticketing app, "GoPass," allows travelers to purchase their public transit tickets, and then connect to the Lyft app with the push of a button. ²³ Potentially more significantly, **Portland, OR's** mass transit agency is fully integrating Lyft into the city's "RideTap" system, giving riders real-time access to information about both public transit and Lyft transportation offerings on a single app.²⁴ This includes options to combine ridesharing and transit on the same one-way trip.

Similarly, **Los Angeles, CA** and **Denver, CO** have both partnered with Xerox to develop smartphone apps that include a wide-array of travel options, including TNC and public transit, with the aim of increasing overall mobility. These apps go a step further than others by determining suggested travel modes based on the traveler's own priorities, such as total carbon emissions, walk speed, and their valuation of travel time.²⁵

Figure 2: Screen sot of "Go LA" app, which allows for easily combining ridesharing and transit on a single trip.



Type III: Efforts to mitigate parking shortages or forestall the need for investments in parking lots

The three programs in this category address parking shortages at crucial locations, typically in downtown districts or at transit stations. A good example is **Summit**, **NJ's** program, which initially involved Uber but was repositioned to work with Lyft. The municipality provides \$2 weekday rideshares to/from its commuter rail station but limits them to residents who have paid for a parking permit at the station—i.e. users who have paid for parking spots that may not be available.²⁶ This has allowed the community to avoid the cost of building a new lot.

Boulder, CO paid \$5 of the cost of ridesharing trips to its downtown during the holiday seasons when parking shortages were most severe. 27 Several other public entities have entered partnerships to alleviate parking issues during special events, such as Bend, OR, which subsidized ridesharing trips on select Friday evenings in the summer when it held events. 28 Sacramento, CA subsidized rides to designated light-rail stations on nights when events were occurring at the local arena. 29 Neither program is presently active.

Type IV: Programs to promote mobility for seniors and/or travelers with impairments. These programs seek to provide alternatives to conventional paratransit service

These programs seek to take advantage of the cost-effectiveness of ridesharing while providing greater convenience for those with mobility challenges. The Massachusetts Bay Transportation Authority's (MBTA's) pilot program with Lyft and Uber is among the largest and most heavily publicized of these, giving all **Boston area** residents who are eligible to use alternatives to MBTA service (e.g., seniors and

the disabled) a limited number of subsidized ridesharing trips per month. Users of UberX and Lyft pay the first \$2 and any amount above \$42, with arrangements for other services varying slightly.³⁰ Riders enjoy pick-ups much faster than with the MBTA's existing paratransit service (called RIDE), typically at lower prices than this established service (Figure 3, Appendix II).

Las Vegas, NV provides subsidized Lyft rides to paratransit-eligible riders, who pay \$3 one-way fares.³¹ A motive for this program is to alleviate the \$32 per ride cost incurred by the city for traditional paratransit service. The city estimates each rideshare costs it about \$15 per ride.

Type V: Specialty programs that indirectly promote transit use or improvements

The three programs in this category provide only *indirect* benefit to transit users. The **Cincinnati, OH** program – a partnership between its regional transit agencies and Uber – established the "Cincinnati Mobility Lab" to promote data sharing, give the city experience working with TNCs, and promote better transportation planning over the longer term.³²

The **San Diego** Association of Government's iCommute program offers a "guaranteed ride home" to encourage the use of transportation alternatives that reduce congestion and pollution (see Appendix III, Figure 5). ³³ Residents who have enrolled receive promotional codes that can be used to request a free ride home in case of illness or emergency, with Uber being one of the options. This program ensures that commuters who chose to walk, bike, or take transit to work will still be able to get a direct ride home if necessary. **Tacoma** also has a guaranteed ride home program, but it is limited to trips originating at a local community college. ³⁴

Several existing or proposed partnerships do not clearly fit into the above categories. **Washington DC**'s fire and EMS departments, for example, have explored contracting Uber to transport non-emergency 911 callers. ³⁵ Going forward, more such collaborations are likely, as communities engage TNCs to address their specified interests and transit needs.

IV. TRENDS AND PROGNOSTICATIONS

No doubt, strategies to build synergy between TNCs and transit operators will evolve in the months ahead. The analysis presented in this report suggests four trends are likely to reshape public agencies' partnerships with TNCs in the coming years:

 More large transit agencies will likely roll out partnerships to test the waters on TNC collaborations. Presently, only 11 of the 50 largest transit agencies in the United States (as measured by unlinked trips in 2017), or their parent organizations, have developed partnerships that directly promote synergy with ridesharing (see Table on page 12). Only two of the largest 10, Boston's MBTA and Philadelphia's SEPTA, provide direct financial support for riders.

It seems probable that more major transit systems, such as those in Chicago, Los Angeles, New York, San Francisco, and Washington, DC, will emulate some of the actions of these two. SEPTA's program providing discounted rides to certain commuter rail stations may become a prototype for other large-city systems.

Chicago is presently the largest metropolitan region in the United States without any partnerships that meet criteria for inclusion in this report, while metropolitan **New York** has only the Summit, NJ partnership.

2. More formal evaluations of programs will **need to be carried out.** The lack of analysis of the performance of most partnerships described above stands as a significant barrier to the development of new ones. Practitioners have little hard evidence at their disposal about the extent to which these programs are achieving their goals despite the fact that most are akin to controlled experiments that lend themselves to statistical evaluation. The audit of the program in Centennial, CO (conducted by Fehr & Peer) is an exception, offering extensive information on the costs and benefits. Similarly, Innisfil, Ontario, Canada has provided publically-available data on the first phase of its partnership with Uber, and detailed how such data was utilized to determine revisions for its second phase.

Insights for large-city systems may also be spurred by the "Mobility on Demand On-Ramp Program," а Federal Administration initiative supported by the Shared Use Mobility Center, which provides technical assistance to public transit agencies implementing new strategies in Austin, TX, Baltimore, MD, Indianapolis, IN, Ithaca, NY, Memphis, TN, and San Francisco, CA. The projects range from exploring microtransit opportunities to increasing equitable transportation access. This effort stems from the Federal Transit Administration's MOD Sandbox Program, which helps cities leverage new mobility tools and technologies.

3. More cities will explore options for improving paratransit service through ridesharing partnerships. Given the chronic shortages of funds for paratransit, this is likely a fruitful area for collaboration. Several cities – including Dallas, TX³⁶ and Portland, OR ³⁷ – are reportedly already pursuing partnerships for this type of service. Several counties in metropolitan Chicago are also considering this option.

4. The integration of fares for trips involving transit/TNC connections is a logical next step in the development of partnerships. Currently, only a few partnerships are supported by apps that allow travelers to see both public transit and TNC routing options through a single search mechanism. However, we anticipate the number of cities that develop such tools will grow.

Furthermore, we expect public bodies will also pursue avenues to incorporate payment for both modes on a single app. Developing a system that allows for payment for both a public transit ride and an Uber ride with a single click will be a complex endeavor. Standing in the way of this type of service are sensitive issues such as protecting private information, including the origin and destinations of particular travelers. Nevertheless, incorporating trip planning options and payments would lower the search and transaction costs associated with mixing modes of travels.

As the examples in the report show, the next several years will likely be fruitful times for more experimentation with partnerships between units of governments and TNCs.

APPENDIX I. DETAILS OF PROGRAMS

Tacoma, WA | May 2018 - Present



Pierce Transit's "Limited Access Connections" program provides free Lyft trips to/from four transit centers, and bus stops in the Tacoma area, including the Puyallup Sounder commuter rail station. Only trips originating or terminating in specific geographic zones during designated times are eligible, with the times varying by zone. Trips to/from the Puyallup station are limited to 5 am -7 pm. The agency also offers a "Guaranteed Ride Home" program from Pierce College Puyallup from 8:30 - 10:30 p.m. for trips to several transit zones. This program is funded by an FTA grant.

Portland, OR | May 2016 - Present



The Tri-County Metropolitan Transportation District of Oregon (TriMet) in metropolitan Portland has fully integrated Lyft into its "RideTap" app, allowing riders to access realtime information about several transportation options simultaneously. The app shows connections between Lyft and both light-rail service and buses.

3. Bend, OR | May 2017 - September



Cascades East Transit subsidized Uber rides on the first Friday of every month in the summer of 2017 in an effort to increase transportation options and alleviate parking shortages during summer activities in downtown Bend. This program was not repeated in 2018.

Vallejo, CA | May 2017 - Present



The Solano Transportation Authority has a partnership with Lyft that reduces fares to \$2 or \$3 for 2 to 5mile trips to/from the Vallejo Station on Amtrak's Capitol Corridor, which links Sacramento to San Jose via Oakland. The program is limited to employees at select social service, food manufacturing, and hospital organizations, including Partnership Health Plan, Solano County Health,

and the Fairfield Suisun Sewer District, working in nearby job parks. Participants must contact the Solano call center to participate. After the trial period ended in November 2017, the program was extended into 2018.

5. Marin, CA | September 2017 -Present



The Transportation Authority of Marin provides \$5 discounts for Lyft Line trips to/from five Sonoma-Marin Area Rail Transit (SMART) commuter rail stations, including Novato North, Hamilton, Marin Civic Center, and downtown San Rafael. The rider pays the first \$2 and the agency pays the next \$5. This program is funded by vehicle registration fees and was extended in April 2018 for another six months. Currently, it serves an estimated 270 rides/month. This program began shortly after SMART, the San Francisco region's newest commuter rail line, launched regular service in August 2017.

Sacramento, CA | October 2016 -Expired





Sacramento's Regional Transit District launched a program in October 2016 to provide \$5 discounts for Uber and Lyft riders heading to/from six designated light-rail stations on nights when events are occurring at their Golden 1 Center arena.

7. Dublin, CA | September 2016 -Present

The Livermore Amador Valley Transit Authority is partnering with Uber, Lyft, and DeSota to provide 50% discounts (up to \$5 off) for all trips within Dublin, a city of 46,000 in metropolitan San Francisco's East Bay Area. This area includes both Tri-Valley BART stations within the community and encompasses 15 square miles.

8. Monrovia, CA | March 2018 - Present The "Go Monrovia" program offers a \$0.50 fare for all Lyft trips that start and end within the city's boundaries.

This program is open to both residents and visitors, and it is not available on premium vehicles or Lyft Line.

9. Los Angeles, CA | January 2016 -Present



Following Denver, CO's lead, Los Angeles partnered with Xerox to develop a smartphone app that incorporates TNC and public transit travel options, as well as several others. Like Denver's "Go Denver" app, the "Go LA" app is free to download, and it determines suggested travel modes based on the traveler's own priorities, such as total carbon emissions, walk speed, and their total travel time valuation.

10. San Clemente, CA | October 2016 -Present

The Orange County Transportation Authority (OCTA) has partnered with Lyft to subsidize rides along four corridors, previously served by two of the city's four bus lines (Routes 191 and 193, which are now canceled). diminishing service to San Clemente Community College and other locations. Riders pay the first \$2, with the city paying the rest (up to \$9); any amount above \$22 is paid by the rider. Reports indicate Lyft is receiving 50 and 100 requests per day. After a pilot, financed by a \$900,000 grant to the city from OCTA, the program was extended through 2018, with additional extensions being considered.

11. San Diego, CA | July 2016 - Present

The San Diego Association of Governments worked with Uber to launch their "iCommute" initiative - a "guaranteed ride home" program allowing residents to receive promotional codes, and then save those codes for when they need to request a ride home in case of illness or emergency. This program encourages the use of transportation alternatives, by ensuring commuters who chose to walk, bike, or take

transit to work that they will still be able to get a direct ride home if necessary.



12. Las Vegas, NV | February 2018 -Present

In February 2018, the Regional Transportation Commission of Southern Nevada launched a sixmonth pilot program for paratransit riders, in which riders can request a Lyft ride subsidized up to \$15 each way. Discounts are available 7am and 6pm, seven days a week. Users pay \$3 one way (and any amount above the subsidized total). The average paratransit

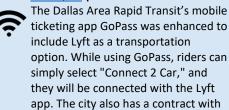
13. Phoenix, AZ | October 2017 - April 2018

The "First Mile/Last Mile" program was a partnership between the Phoenix Public Transit Department and Lyft that offered 20% discounts on rides to/from more than 500 Valley Metro bus stops throughout the city. Discounts were limited primarily to trips involving areas in which transit service was limited, including an area around South Mountain. New Lyft users could also receive \$5 off their first four rides. Trips had to start and end in a designated transit transfer area that included lengthy stretches of many local streets, such as Baseline Rd., Deer Valley Road, and Union Mills Rd. For a map, click here.

14. Austin, TX | May 2018 – Present

Austin's transit agency, Capital Metropolitan Transportation Authority, has partnered with RideAustin to increase mobility around the city's "Exposition Area," a district near central Austin home to many technology jobs. The program provides free RideAustin trips within this area to/from the area to two nearby bus stops served by Metrobus routes 18 (Martin Luther King Driver) and 335 (35th/38th). For a map, click here.

15. Dallas, TX | October 2015 - Present



Lyft for a pilot program for paratransit

16. Centennial, CO | August 2016 -February 2017



In this Denver suburb (pop. 109,000), riders had subsidized Lyft, or Via rides to/from its Dry Run Creek station, which has frequent light-rail service to downtown Denver (about 15 miles away). Users could make the request on the Lyft app or on a mobile platform provided by the city, with an accessible vehicle being available at all times. The program was not extended in part due to insufficient demand. (Roughly \$130,000 of the allotted \$400,000 had been spent by June 2017). An audit showed the reduced average trip cost to the city was \$4.70/trip. For more details, click here.

17. Boulder, CO | November 2016 -February 2017



The City of Boulder, the Downtown Boulder Partnership, the Rocky Mountain Institute, and other entities created the Door to Downtown (d2d) program, a pilot program that enabled travelers to get discount codes for Uber or Lyft rides to the downtown business district. One of the principal motives of this program was parking shortages during the holiday season in the district. The program was not resumed in 2018.

18. Denver, CO | March 2016 - Present



The city of Denver partnered with Xerox to develop a smartphone app that incorporates Lyft and public transit travel options, as well as several others. This app, titled "Go Denver" is free to download, and it determines suggested travel modes based on the traveler's own priorities, such as total carbon emissions, walk speed, and their total travel time valuation.

19. Detroit, MI | May 2018 - Present



To compliment limited late-night bus service, this "Woodward 2 Work" pilot program covers up to \$7 on weekday Lyft rides traveling to/from bus stops along the 53 Woodward route between the hours of midnight and 5 a.m. The program is a partnership between the **Detroit Department of Transportation** and Lyft; it is funded with the proceeds of a grant and is limited to 2,000 rides total.

20. Dayton, OH | June 2017 - Present

Titled "RTA Connect," the Greater **Dayton Regional Transit Authority** launched a partnership with Lyft in 2017 to provide free Lyft rides between designated transit stops. Unlike "First-Mile/Last-Mile" programs, this program supplements bus service by allowing passengers to use ridesharing in place of buses. Valid stops are marked with a "Ride Connect" sign. The authority is also working to incorporate vehicles for riders with disabilities.

21. Cincinnati, OH | January 2018 - Present



In partnership with Uber, a wide array of stakeholders established the Cincinnati Mobility Lab to promote data sharing and improved transportation planning. This program has many components, several of which are designed to make Cincinnati a leader in mobility innovation and to "expand Uber's presence in the Cincinnati region with a new, expanded greenlight hub support center and a dedicated Uber relationship manager for the Cincinnati Mobility Lab." The Cincinnati USA Regional Chamber, the City of Cincinnati, and Ohio-Kentucky-Indiana Regional Council of Governments, in partnership with the Southwest Ohio Regional Transit Authority and the Transit Authority of Northern Kentucky, are among the organizations that created this partnership.

22. Boston, MA | September 2016 -Present



The Massachusetts Bay Transportation Authority offers the On-Demand Pilot Paratransit program with Uber and Lyft to provide on-demand service to its paratransit riders. Customers who are eligible for its "The Ride" service (the city's regional paratransit program) receive a limited number of subsidized TNC rides per month. On UberPool, the customer pays the first \$1 for the trip and anything over a \$41 fare; on Uber X and all Lyft trips, customers pay the first \$2 and anything over a \$42 fare. The discounted fares are valid between 5 a.m. and 1 a.m. This program has recently been extended to January 1, 2019. Trips to Logan Airport are not covered.

23. Summit, NJ | October 2016 - Present

This New York City suburb has partnered with Lyft (originally Uber) to provide \$2 rides for weekday trips to and from its transit station for all residents with a parking permit, thereby allowing the community to postpone building a new parking lot. Valid 5 am - 1 am for up to 200 rides annually, which can be booked up to 7 days in advance. This program, initially one year long, was recently extended to late 2018.

24. Philadelphia, PA | May 2016 -September 2017



In an effort to encourage car-free commutes from the suburbs, Southeastern Pennsylvania Transportation Authority partnered with Uber to provide discounted rides (up to 40% off) to or from 11 suburban rail stations in Bucks, Chester, Delaware, and Montgomery counties. A maximum discount was \$10 per ride. The stations included in this program were some of SEPTA's busiest, having high ridership and limited availability of parking spaces. Several had parking that was temporarily restricted due to construction. The pilot program was not extended due in part to concern over the lack of data to measure its effectiveness.

25. Washington D.C. | n/a

Although not in effect yet, Washington DC fire and EMS departments are exploring ways to contract Uber to transport non-emergency 911 callers.

26. Charlotte, NC | April 2018 - Present



In April 2018, the Charlotte Area Transit System launched a pilot program with Lyft to increase mobility in areas where transit service is limited. The city contributes \$4 toward each Lyft trip taken to/from JW Clay/UNC Charlotte Station and Parkwood Station on its Lynx light-rail system that end or begin in the geo-fenced area. The city will subsidize up to 40 trips per month for individuals with monthly transit passes, and two trips per month for those with other valid transit passes.

27. Altamonte Springs, Lake Mary, Longwood, Maitland and Sanford, FL

March 2016 - July 2018

These five Florida communities joined forces to launch a pilot program that enabled each of the participating cities to subsidize 20% of the intercity Uber fares that end within their respective limits.

28. St. Petersburg, FL | February 2016 -



Present

Pinellas Suncoast Transit Authority has created the Direct Connect program, which offers \$5 discounts on Uber and United Taxi (and recently expanded to include Lyft) to/from 24 bus stops in the St. Petersburg-Clearwater area. Available 6 a.m. - 11 p.m. It also established a pilot program providing free TNC rides to low-income residents (as noted above in Section III) between 9pm and 6am.

29. Royal Palm Beach, FL | June 2018 -



Present

Residents age 65 and older who live in this village of 38,000 and register for its recreation center will pay half the cost of each Lyft ride, up to \$40 per month per registered member. Rides must begin and end either within Royal Palm Beach or at the Wellington

Regional Medical Center. Lyft provides a monthly report that includes how much the village spent and where each trip was taken. The annual budget for the program is \$40,000, which is estimated to provide 3,000 rides at about \$12 per ride.

*Canadian Case Study: Innisfil, ON | May 2017 - Present

This Ontario community partnered with Uber in place of a traditional transit system. The program provides \$5 subsidies on all routes within Innisfil borders, as well as \$3 flat rate fares to select community locations such as the local library and community center. The city's average per passenger subsidy is \$5.62, a fraction of the \$33 per passenger subsidy estimated for a bus route. One innovative component of the program is that the community allows residents without a credit card to purchase \$25 Uber gift cards from city hall so that they too can participate.

Program details available here, and

program analysis available here.

APPENDIX II. STATUS OF PARTNERSHIP AT THE 50 LARGEST U.S. TRANSIT PROVIDERS (RANKED BY UNLINKED PASSENGER TRIPS IN 2017)

				Unlinked		Divertor
				Unlinked Passenger	Direct	Direct or Indirect
Name		City	State	Trips	Partnership	participant
1.	MTA New York City Transit	New York	NY	3,464,743,546	No	No
2.	Chicago Transit Authority	Chicago	IL	497,704,252	No	No
3.	Los Angeles County Metropolitan Transportation Authority	Los Angeles	CA	432,985,182	No	Yes
4.	Massachusetts Bay Transportation Authority	Boston	MA	403,003,734	Yes	No
5.	Washington Metropolitan Area Transit Authority	Washington	DC	379,141,810	No	No
6.	Southeastern Pennsylvania Transportation Authority	Philadelphia	PA	354,615,326	Yes	No
7.	New Jersey Transit Corporation	Newark	NJ	277,012,293	No	Yes
8.	San Francisco Municipal Railway	San Francisco	CA	232,827,475	No	No
9.	San Francisco Bay Area Rapid Transit District	Oakland	CA	137,658,212	No	Yes
10.	Metropolitan Atlanta Rapid Transit Authority	Atlanta	GA	133,383,107	No	No
11.	King County Department of Transportation	Seattle	WA	127,384,761	No	No
12.	MTA Bus Company	New York	NY	125,617,038	No	No
13.	Maryland Transit Administration	Baltimore	MD	110,727,565	No	No
14.	Denver Regional Transportation District	Denver	СО	103,340,797	No	No
15.	MTA Long Island Rail Road	Jamaica	NY	103,196,857	No	No
16.	Tri-County Metropolitan Transportation District of Oregon	Portland	OR	101,702,561	Yes	Yes
17.	Miami-Dade Transit	Miami	FL	98,962,300	No	No
18.	San Diego Metropolitan Transit System	San Diego	CA	92,437,294	No	Yes
19.	Metropolitan Transit Authority of Harris County, Texas	Houston	TX	89,970,895	No	No
20.	Port Authority Trans-Hudson Corporation	Jersey City	NJ	89,466,496	No	No
21.	Metro-North Commuter Railroad Company	New York	NY	86,872,761	No	No
22.	Metro Transit	Minneapolis	MN	82,624,619	No	No
23.	Northeast Illinois Regional Commuter Railroad Corporation	Chicago	IL	72,289,606	No	No
24.	City and County of Honolulu Department of Transportation Services	Honolulu	HI	69,553,686	No	No
25.	Regional Transportation Commission of Southern Nevada	Las Vegas	NV	67,346,272	Yes	Yes
26.	Dallas Area Rapid Transit	Dallas	TX	66,799,954	Yes	Yes
27.	Port Authority of Allegheny County	Pittsburgh	PA	63,823,513	No	No
28.	Alameda-Contra Costa Transit District	Oakland	CA	54,575,655	No	No
29.	Orange County Transportation Authority	Orange	CA	46,356,803	Yes	Yes
30.	Utah Transit Authority	Salt Lake City	UT	45,521,914	No	No
31.	The Greater Cleveland Regional Transit Authority	Cleveland	OH	44,285,601	No	No
32.	Bi-State Development Agency of the Missouri-Illinois Metropolitan	Clovolana	- 011	11,200,001	110	110
	District	St. Louis	МО	44,046,960	No	No
33.	Santa Clara Valley Transportation Authority	San Jose	CA	43,996,916	No	No
34.	Central Puget Sound Regional Transit Authority	Seattle	WA	42,732,202	No	Yes
35.	Milwaukee County Transit System	Milwaukee	WI	40,709,350	No	No
36.	VIA Metropolitan Transit	San Antonio	TX	39,363,491	No	No
37.	City of Phoenix Public Transit Department dba Valley Metro	Phoenix	AZ	34,156,165	Yes	Yes
38.	Broward County Transit Division	Plantation	FL	33,373,580	No	No
39.	Pace - Suburban Bus Division	Arlington Heights	IL	31,169,635	No	No
40.	Capital Metropolitan Transportation Authority	Austin	TX	31,048,807	Yes	Yes
41.	Westchester County Bee-Line System	Mount Vernon	NY	29,718,131	No	No
42.	Niagara Frontier Transportation Authority	Buffalo	NY	28,079,525	No	No
43.	City of Detroit Department of Transportation	Detroit	MI	27,416,184	Yes	Yes
44.	Central Florida Regional Transportation Authority	Orlando	FL	27,378,837	No	No
45.	Nassau Inter County Express	Garden City	NY	27,264,239	No	No
46.	Long Beach Transit	Long Beach	CA	26,323,460	No	No
47.	Charlotte Area Transit System	Charlotte	NC	26,248,940	Yes	Yes
48.	Ride-On Montgomery County Transit	Rockville	MD	24,512,705	No	No
49.	Sacramento Regional Transit District	Sacramento	CA	24,330,247	Yes	Yes
50.	Washington State Ferries	Seattle	WA	24,089,468	No	No

Direct partnerships (11) are initiatives explicitly sponsored, funded, or supported with technical resources from the transit agency. **Indirect programs** (14) are initiatives sponsored or managed by public bodies unaffiliated with the transit agency but designed to stimulate ridership on the transit provider's bus or rail service. We include the development of apps involving TNCs in this category.

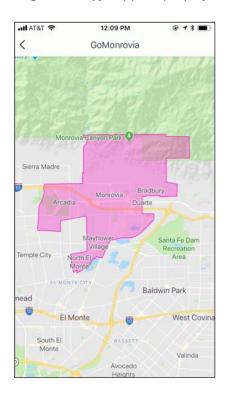
APPENDIX III. FIGURES FROM VARIOUS PARTNERSHIPS FEATURED

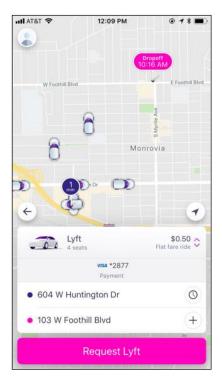
Figure 1: Stations in the Philadelphia Region with Discounted Uber Rides



Regional rail map showing the 11 stations (in yellow highlighting) in which ridesharing trips were available at a discount during SEPTA's program.

Figure 2: Lyft App Display of Monrovia, CA's "Go Monrovia" discount program





Program offers \$0.50 flat rates on all trips taken within the Monrovia, CA city boundaries.

Figure 3: Differing characteristics of Boston-Area Pilot Program with TNCs and The Ride Paratransit Service

Service	THE RIDE	Pilot Program	
Fare	\$3.15 or \$5.25 for premium trips	As low as \$2.00	
Booking Timeframe	At least 1 day in advance	On demand - Instant request to dispatch	
Day-of Wait Time	30-minute window	As low as 5 minutes in core service areas	
Trip Reservations	By phone	Via smartphone app or phone call (Lyft only)	

The price and service characteristics of the TNC pilot program and conventional "The Ride" paratransit service in metropolitan Boston.

Figure 4: Dayton, OH's "RTA Connect" Route Map and Bus Station Signage

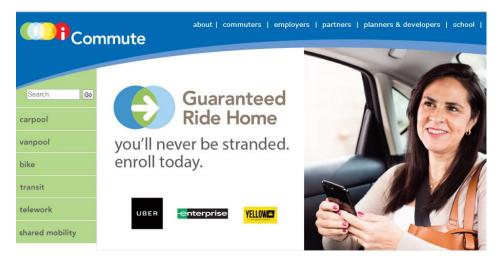
Farmersville, Germantown, and Miamisburg Carolyn Dr. Dean RARMERSVILLE Walnut @ Broadway Fix @ Central Transfer Points/Connect Stops Transfer Points/Connect Stops Route 18 Route 80 GERMANITOWN Market & Bullicest GERMANITOWN GERMANITOWN South Hub Catherine Dr. Catherine Dr. Catherine Dr. South Hub Catherine Dr

Street Name/Location	City	Code
Walnut at Broadway	Farmersville	Connect937
Carolyn Dr. at Dean	Farmersville	Connect937
Lindell at Sue Ct.	Germantown	Connect937
Market at Hillcrest	Germantown	Connect937
Market at Main	Germantown	Connect937
1st at Central Transfer Point	Miamisburg	Connect937
Riverview at Linden	Miamisburg	Connect937
Riverview at Miamisburg	Miamisburg	Connect937



Map and table showing routes and stations that are part of the free ride program offered by Dayton's Regional Transit Authority. Photo source: Lyft.com

Figure 5: Online advertisement for San Diego's iCommute, a Guaranteed Ride Home Program



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¹ Shared Used Mobility Center, 2016 & 2018.

² For a description of studies exploring traffic changes attributable to TNCs, see our earlier report, *Uber Economics: Evaluating the Monetary and Nonmonetary Tradeoffs of TNC and Transit Service in Chicago, IL*. Available at https://las.depaul.edu/centers-and-institutes/chaddick-institute-for-metropolitan-development/research-and-publications/Documents/Uber%20Economics_Live.pdf

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⁴ Information from American Public Transit Association, available at https://www.apta.com/resources/mobility/Pages/Transit-and-TNC-Partnerships-.aspx

⁵ Information on the data provided by the law presented in *The Boston Globe* is available at https://www.bostonglobe.com/business/2018/05/01/there-were-nearly-uber-and-lyft-rides-day-boston-streets-last-year/yzOWJ9PdVg8KKQMQSKSF2K/story.html

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¹⁷ Information from the City of Phoenix, available at https://www.phoenix.gov/news/publictransit/1883

¹⁸ SEPTA ranked sixth in unlinked passenger trips during 2017. See table in Appendix II.

¹⁹ Information from the Southeastern Pennsylvania Transportation Authority, available at http://www.septa.org/media/releases/2016/05-25-16a.html

²⁰ Information from the City of Detroit, available at http://www.detroitmi.gov/w2w

²¹ Information from the Pinellas Suncoast Transit Authority, at https://www.psta.net/programs/td-transportation-disadvantaged/

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²⁴ Information from the Tri-County Metropolitan Transportation District of Oregon, available at http://news.trimet.org/2016/05/trimet-tickets-app-now-helps-riders-connect-to-other-transportation-options/

²⁵ Information on the Go Denver and Go Los Angeles apps from *Fortune*, available at http://fortune.com/2016/01/28/xerox-los-angeles-traffic/

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