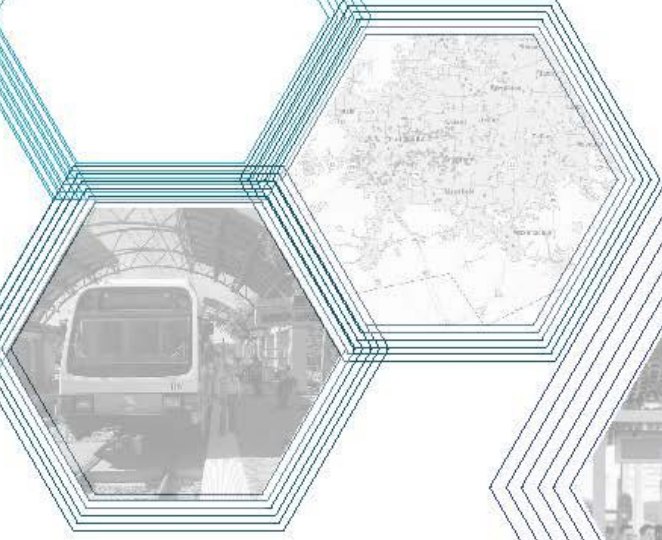




Union Cab of Madison Cooperative
Commute to Careers Program
Evaluation, 2018–2019

Carolyn McAndrews, Ph.D.
Alexander Allon
Annette Marie Ruth
Tammie Davis
Bill Carter



FINAL REPORT

UNION CAB COOPERATIVE OF MADISON COMMUTE TO CAREERS PROGRAM EVALUATION, 2018–2019

FINAL PROJECT REPORT

By:

Alexander Allon
Annette Marie Ruth
Carolyn McAndrews, Ph.D.
University of Wisconsin–Madison

Tammie Davis
Bill Carter
Union Cab of Madison Cooperative

Sponsorship:
CTEDD

For:

Center for Transportation, Equity, Decisions and Dollars (**CTEDD**)
USDOT University Transportation Center
The University of Texas at Arlington
601 W.Nedderman Dr. Suite 103
Arlington TX 76019-0108 United States
Phone: 817-272-5138 | Email: C-Tedd@uta.edu

In cooperation with US Department of Transportation-Research and
Innovative Technology Administration (RITA)

October 2019

Acknowledgments

This work was supported by a grant from the Center for Transportation Equity, Decisions, and Dollars (CTEDD) funded by U.S. Department of Transportation Research and Innovative Technology Administration (OST-R) and housed at The University of Texas at Arlington. The work received additional support from the Office of the Vice Chancellor for Research and Graduate Education at the University of Wisconsin–Madison with funding from the Wisconsin Alumni Research Foundation. Support for the Union Cab Commute to Careers Program was from the Wisconsin Department of Workforce Development.

Disclaimer

The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the information presented herein. The conclusions, findings, and opinions expressed by authors contributing to this report do not necessarily reflect the official position or views of Union Cab of Madison Cooperative or the Wisconsin Department of Workforce Development. This document is disseminated under the sponsorship of the U.S. Department of Transportation's University Transportation Centers Program, in the interest of information exchange. The Center for Transportation, Equity, Decisions and Dollars (CTEDD), the U.S. Government and matching sponsor assume no liability for the contents or use thereof.

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Union Cab Cooperative of Madison Commute to Careers Program Evaluation 2018–2019	5. Report Date October 31, 2019		6. Performing Organization Code
	7. Author(s) Alexander Allon, Annette Marie Ruth, Tammie Davis, Bill Carter, Carolyn McAndrews		
9. Performing Organization Name and Address Center for Transportation, Equity, Decisions and Dollars (CTEDD) USDOT University Transportation Center The University of Texas at Arlington 601 W. Nedderman Dr. Suite 103 Arlington TX 76019-0108 United States	8. Performing Organization Report No.		
	10. Work Unit No. (TRAIS)		
12. Sponsoring Organization Name and Address United States of America Department of Transportation Research and Innovative Technology Administration	11. Contract or Grant No. CTEDD 018-13		
	13. Type of Report and Period Covered		
14. Sponsoring Agency Code			
15. Supplementary Notes			
16. Abstract <p>Despite decades of research and government investment in commute options for low-income workers, mobility barriers are still a major hindrance for low income workers and employers alike. In this case study, we analyze a traditional taxicab firm's initiative to enter the employment transportation arena with a ride service. The business model proposes that employers and workers share the cost of the rides in order to sustainably operate without grant funding in the long term. This service, in theory, should benefit all three major stakeholders; workers would have affordable transportation, employers would retain and recruit workers, and the taxicab firm would increase the utilization of its services, especially during off-peak hours.</p> <p>We evaluate the implementation of this intervention through rider surveys, taxicab operations data, and interviews with key stakeholders. Six months into operation, we found that the program has reached its target population of low-income, transportation-limited members of the workforce in Madison, Wisconsin who are largely African-American, underemployed hourly workers receiving limited to no work benefits, limiting access to both employment and healthcare. Furthermore, we found that the program is meeting its targets for serving riders and operating outside of peak hours, though ride-sharing is lower than anticipated. Numerous special operating procedures and detailed problem solving for individual riders raises administrative costs that could be addressed through hiring personnel. With two employer partners on board, and ongoing recruiting to adopt the intervention, we see the potential to develop a sustainable program model.</p> <p>Finally, we translate the lessons learned from program into a startup guide, which is intended to serve as a set of guidelines for other transit organizations who wish to establish this intervention model. We strongly recommend that the process of employer partner recruitment is initiated either prior to or immediately upon program inception. This approach ensures long-term sustainability and prolongs the life of grant funding. Program operations should be overseen by a dedicated administrator in order to ensure timely reporting and monitoring activities, including compiling quarterly operations reports, addressing copay delinquencies, identifying program abuse, and enforcing program policies.</p>			
17. Key Words Taxicabs, transportation disadvantaged persons, commuting, evaluation and assessment		18. Distribution Statement No restrictions.	
19. Security Classification (of this report) Unclassified.	20. Security Classification (of this page) Unclassified.	21. No. of Pages 76	22. Price N/A

Table of Contents



List of Figures

List of Tables

Abstract

Despite decades of research and government investment in commute options for low-income workers, mobility barriers are still a major hindrance for low income workers and employers alike. In this case study, we analyze a traditional taxicab firm's initiative to enter the employment transportation arena with a ride service. The business model proposes that employers and workers share the cost of the rides in order to sustainably operate without grant funding in the long term. This service, in theory, should benefit all three major stakeholders; workers would have affordable transportation, employers would retain and recruit workers, and the taxicab firm would increase the utilization of its services, especially during off-peak hours.

We evaluate the implementation of this intervention through rider surveys, taxicab operations data, and interviews with key stakeholders. Six months into operation, we found that the program has reached its target population of low-income, transportation-limited members of the workforce in Madison, Wisconsin who are largely African-American, underemployed hourly workers receiving limited to no work benefits, limiting access to both employment and healthcare. Furthermore, we found that the program is meeting its targets for serving riders and operating outside of peak hours, though ride-sharing is lower than anticipated. Numerous special operating procedures and detailed problem solving for individual riders raises administrative costs that could be addressed through hiring personnel. With two employer partners on board, and ongoing recruiting to adopt the intervention, we see the potential to develop a sustainable program model.

Finally, we translate the lessons learned from program into a startup guide, which is intended to serve as a set of guidelines for other transit organizations who wish to establish this intervention model. We strongly recommend that the process of employer partner recruitment is initiated either prior to or immediately upon program inception. This approach ensures long-term sustainability and prolongs the life of grant funding. Program operations should be overseen by a dedicated administrator in order to ensure timely reporting and monitoring activities, including compiling quarterly operations reports, addressing copay delinquencies, identifying program abuse, and enforcing program policies.

Chapter I: Introduction

Individuals facing transportation barriers in the United States need affordable alternatives to private vehicles and traditional transit (Matsuo, 2019; King et al., 2019; Blumenberg et al., 2018; Smart and Klein, 2018; Ralph, 2018; Blumenberg and Pierce, 2017; Blumenberg and Manville, 2004; Ong and Blumenberg, 1998). New types of ridesourcing, microtransit, and other demand-responsive services may be substitutes for the door-to-door convenience of private vehicles. These emerging transit models are beginning to serve retail markets but could also expand to the human service transportation sector, which focuses on transportation disadvantaged groups: low-income workers, people with disabilities, and older travelers (Brown, 2019; Feigon et al., 2018; Curtis et al., 2019).

In this program evaluation, we examine how a traditional taxicab company in Madison, Wisconsin has used grant funding to expand its services to provide affordable, on-demand employment transportation with the goal of developing a financially sustainable program. We ask what it takes for a traditional taxicab company to retool its business, including the fleet, driver training, operations software, and service models, to serve a larger share of the human service transportation market while competing with new ridesourcing technologies.

The Union Cab of Madison Cooperative Commute to Careers (CTC) Program Evaluation assesses the program through analysis of rider, operational, and organizational outcomes to identify strategies for improving the CTC program's service delivery and to develop sustainable funding models. This assessment provides a detailed review of program operations that inform its continued implementation. These include the following aspects of the program:

- Program organizational structure and guiding policies and procedures;
- Service delivery framework and procedures, including rider eligibility and program outreach;
- Funding resources;
- Program cost accounting and cost sharing among business partners;
- Ride data, including trip length, fares, and pooling;
- Characteristics of the ridership, including demographics, socioeconomic status (SES), transportation challenges, employment, and health, as identified through individual surveys; and
- Successes and challenges within Union Cab's program operations, as identified through individual interviews.

In the next section we briefly review the institutional context of employment transportation and describe the demonstration project. Then we discuss our research and evaluation methods, including participant observation, interviews with stakeholders, rider surveys, and analysis of operations data. We examine how Union Cab modified its processes to create the new service, as well as how this company acted within the larger institutional and

organizational context of employment transportation policy. Finally, we conclude with recommendations, based on our findings, about how the program might develop to operate independent of grant funding.

Chapter II: Policy, Context, and Precedent

Decades of transportation policies and funding in the U.S. have aimed to help low-income workers overcome transportation barriers and gain access to jobs. National welfare policy reform in the 1990s transformed entitlement programs, which had previously provided direct financial support for households, into programs focused on transitioning people back into the workforce. This change necessitated supplemental programs and services to facilitate the transition back to employment through job training, transportation, and childcare (Personal Responsibility and Work Opportunity Act, 1996; Blumenberg and Manville, 2004).

The transportation sector implemented complementary programming, the Jobs Access and Reverse Commute (JARC) program, which had the dual purpose of supporting mobility for low-income workers as well as providing transportation access to suburban and exurban job centers (Blumenberg and Manville, 2004; Transportation Equity Act for the 21st Century, 1998; GAO, 2003; GAO, 2012; Thakuria et al., 2013). The objective was to reduce work-related transportation barriers that were exacerbated by settlement patterns and the distribution of transit services (Blumenberg and Manville, 2004). Cost-benefit analysis of JARC programs indicated that first-year costs were high and the initial economic benefits to users were minimal. Continued use of the program, however, did have the potential to positively impact wellbeing and have a positive benefit-cost ratio (Thakuria et al., 2013).

The majority of funding from these reverse commute programs supported the expansion of public transit rather than innovations in other transportation modes (GAO, 2012; GAO 2003). Despite this dearth of support, certain taxicab organizations, transportation network companies (TNCs), volunteer driver services, and accessible paratransit programs have created operations in the employment transportation and human service transportation markets (Figure 1). The New York City area, for example, has used informal services such as community cars, livery vehicles, commuter vans, dollar vans, and other for-hire services as a complement to traditional public transportation (King and Saldarriaga, 2017).

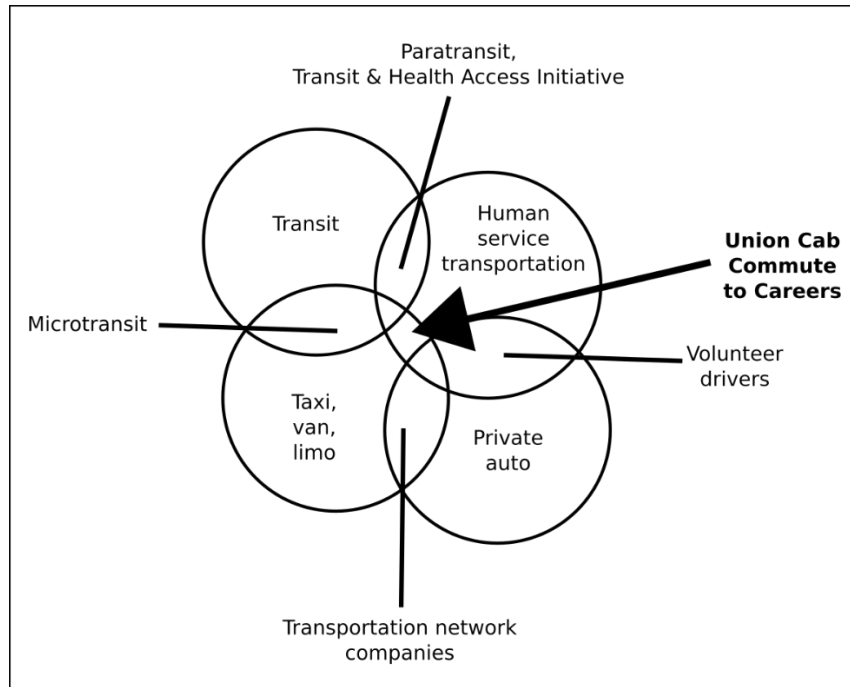


Figure 1. Institutional context of the Union Cab Commute to Careers Program

In the 2010s, shared mobility and ride-sourcing services began to emerge as alternative commuter transportation programs (Pendall et al., 2016). Their affordability and flexibility may serve human service transportation and conventional markets, but many companies operating in these modes lack the infrastructure and training necessary to accommodate a variety of programs. In particular, TNCs operating shared mobility programs have been called on to increase the availability of accessible vehicles and develop strategies to serve people who are unbanked (King and Saldarriaga, 2017). That many traditional taxicab firms already provide accessible transportation and accommodate a diverse ridership suggests a unique opportunity for them to innovate their existing services and compete in the microtransit sector. In addition, part of the utility of taxi rides in these markets may be traced to their acceptance of cash payments. Studies have found, “strong correlations between neighborhoods with high shares of unbanked households and taxi trips ... paid with cash” (King and Saldarriaga, 2017:15).

Wisconsin was an early adopter of welfare reform during the 1990s and its programming also included transportation (Alfred and Martin, 2007; Ehrle et al, 2001). The Wisconsin Department of Workforce Development (DWD) and Wisconsin Department of Transportation (WisDOT) have coordinated employment transportation through the Wisconsin Employment Transportation Assistance Program (WETAP) since 1998. The first few iterations of WETAP funded transit service expansion, mobility management, childcare-related transportation, and shared-ride taxi services (Chen, 2001). In 2018, Wisconsin expanded its employment transportation program with CTC, which provided \$8 million to private companies and nonprofits that demonstrated a need to provide transportation to recruit and retain workers

(Wisconsin Department of Workforce Development, 2018). This is the grant that supports the demonstration project that we evaluate in this study.

2.1 Transportation Context

Workers in the U.S. mainly commute by automobile. In 2017, 76% of commuters in the US drove alone and 9% carpooled. Public transit represents only about 5% of all work trips and walking and cycling account for just over 3% of work trips (Table 1; U.S. Census, 2018). Commuting by private vehicle represents an even greater share of work trips in Wisconsin, though commuters in more urbanized areas, like the Madison metropolitan area, have relatively higher alternative mode shares compared to the national average.

Table 1. How people travel to work, 2017

	United States	Wisconsin	Dane County	Madison	United States	Wisconsin	Dane County	Madison
	(Households)				(Share of households)			
Total	118,825,921	2,328,754	216,930	265,003	1.00	1.00	1.00	1.00
No vehicle available	10,468,418	160,637	16,867	18,924	0.09	0.07	0.08	0.07
1 vehicle available	39,472,759	744,161	76,709	90,231	0.33	0.32	0.35	0.34
2 vehicles available	44,402,282	937,885	88,537	107,675	0.37	0.40	0.41	0.41
3 vehicles available	16,885,932	342,295	25,273	34,104	0.14	0.15	0.12	0.13
4 or more vehicles available	7,596,530	143,776	9,544	14,069	0.06	0.06	0.04	0.05

Source: U.S. Census Bureau. 2017 American Community Survey, Table S0801, 5-year estimates.

In Dane County, 46,000 residents ages 15 and older do not drive, and more than 16,000 households do not have a car (U.S. Census, 2018; FHWA, 2017). Not driving (or not having a car) represents a fundamental challenge to accessing work and opportunities. The 2017 Wisconsin sample of the National Household Travel Survey shows that only 19% of non-drivers were employed, compared to 59% of drivers (FHWA, 2017). Women and individuals with lower incomes are overrepresented among non-drivers; about one-third have a medical condition that affects their travel needs, but only 6% report using specialized transportation services, and only 4% used reduced fare taxi service (FHWA, 2017).

While private vehicles allow for tremendous mobility, they are expensive. For low-income workers, these costs can be prohibitive to car-ownership and, thus, limit flexible access to job locations. Low-income housing and entry-level and/or low-skilled employment opportunities are not necessarily co-located or served by high-quality transit service. In the late

1960s, economist John Kain hypothesized that locational discrepancies between the residences of those of lower economic status and places of potential employment perpetuated job instability and inhibited economic mobility (Kain, 1968). The theory that developed from this observation became known as “spatial mismatch” and has dominated the literature on job access and transportation. Expanding on this theory, Blumenberg and Manville (2004) posit that a more meaningful explanation of transportation barriers to employment involves examining discrepancies in travel modes available rather than focusing on spatial mismatch. Often automobile commuters can travel greater distances in less time compared to those taking public transit, assuming the transit system can even access the same location. The limited choices in commute transportation modes for many low-income people represents a significant barrier to employment access.

2.2 Labor Market

Since 2009, the United States has experienced an economic expansion with a record-low unemployment rate of 3.8% in 2018 (U.S. Bureau of Labor Statistics, 2019). The state of Wisconsin has experienced a similarly strong labor market and a 3.2% unemployment rate in 2017 (DWD, 2017). Unemployment in Dane County, the location for this demonstration project, has tracked lower than both state and national percentages, with its lowest unemployment rate at 2.1% in April 2017. According to the Dane County Workforce Profile (2017), businesses report barriers to expansion due to the resulting lack of access to workers. The number of individuals retiring from the workforce has nearly matched the influx of those entering the labor pool and has resulted in limited labor pools.

The tight labor market, in combination with a tight housing market, has implications for workforce transportation. The local transit agency, Madison Metro Transit, is planning for population and job growth within the region, and for job opportunities to eventually exceed the population of available workers, indicating increased commuting to the region from outlying areas. Employment density is increasingly shifting from the urban core into outlying suburban areas that are either difficult to access or that are not served by public transit (Figure 2).

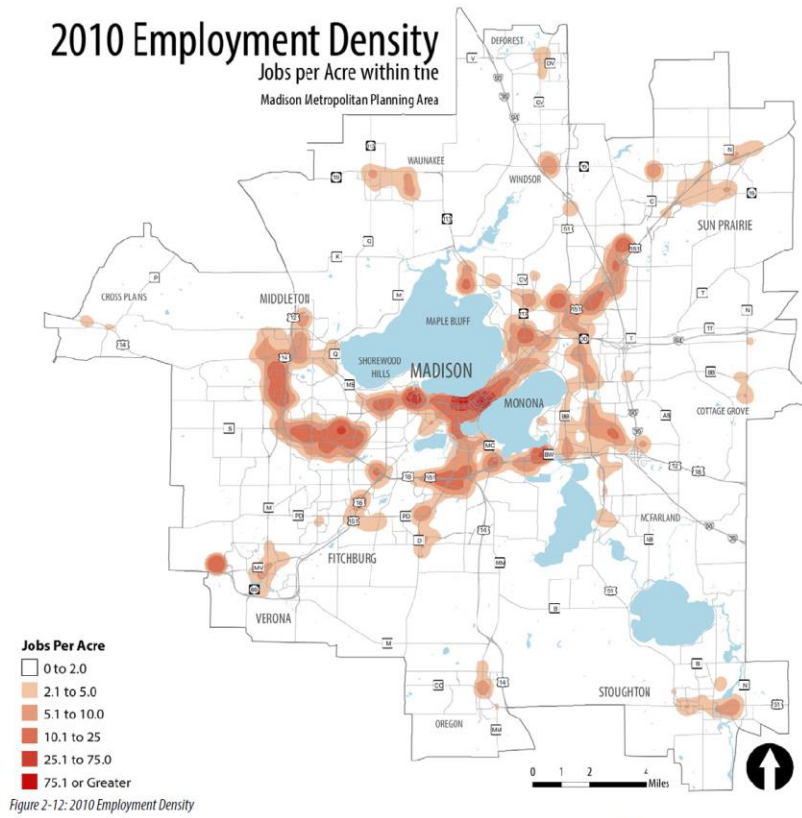


Figure 2. Employment density map for the Madison metropolitan area

Since 2007, the number of employees working in Madison and living within 10 miles of their place of employment has decreased from 58% to 52%. Currently, the area with the densest population in the Madison region, the isthmus core, has been shown to be able to support a bus service running every 5 minutes. The less dense surrounding areas can only support a service that runs every half hour to one hour. One of the challenges facing Madison planners is to develop an integrated transportation network linking dispersed residents to employment and activity centers across the region.

Transportation mode shares for Madison indicate that residents located on “periphery areas” outside the Beltline highway, a highway system that loops around the city itself, choose bike and transit at a much lower rate than those located in the central area (City of Madison, 2017). Many of these peripheral areas do have access to bus services but with relative infrequency and higher number of transfers.

2.3 Mobility on Demand

The advent of technology-based TNCs over the last decade has had a disruptive effect on traditional transportation in the United States. These new transportation modes capitalize on the stress experienced by traditional fixed-route, fixed-schedule public transit systems as they

attempt to accommodate an increasingly urban society (Liyanage et al., 2019). Mobility on Demand (MOD) systems represent flexibility and mimic the use of private vehicles in that they provide door-to-door service upon request. These services may also reflect a substantial cost-savings to users when compared to private car ownership.

According to Liyanage et al. (2019), public transportation systems can be cost-effective from the supply side when operating within urban areas and standard hours but quickly experience a decline in performance in low-density areas and at off-peak hours. In a 2018 MOD workshop hosted by the U.S. Department of Transportation, participants identified the need for more MOD pilot programs to be implemented and evaluated, particularly in areas with poor or nonexistent public transit services, in order to further develop models that would benefit both users and operators (Shaheen et al., 2018; Liyanage et al., 2019). One takeaway from the conference was the recognition that the highly customized nature of local programs contributes to their success. This does, however, present a challenge in determining program evaluation methods that produce generalizable findings.

2.4 Program Precedents

Union Cab's Commute to Careers program has precedents in other pilot employment transportation programs looking to innovate within MOD. A central component of these programs that is missing from that of Union Cab is a focus on integrating technology into program implementation. We examine two publicly-funded employment transportation programs, TD Late Shift and GoDublin!, and one privately-funded, tech-based employment transportation program called Scoop.

2.4.1 TD Late Shift

In 2016, the public transportation authority of Pinellas County, Florida (PSTA) piloted a program aiming to connect low-income workers with their places of employment at times when bus services are not operating. The PSTA identified a potential ridership that works in jobs requiring late-night or early morning commutes, such as those required of restaurant workers or security guards, and has low enough incomes to qualify for the program. If a resident in the county earns less than 150 percent of federal poverty levels and does not have regular access to a vehicle, he or she qualifies for PSTA's Transportation Disadvantaged (TD) program offering discounted bus passes.

Ninety percent of program funding for TD Late Shift, roughly \$500,000 annually, is provided by the Florida Commission for the Transportation Disadvantaged with the remaining 10% coming as a local match from the PSTA. TD Late Shift relies on transportation services through private partnerships with Uber, Care Ride (wheelchair provider) and United Taxi and accepts submissions from prospective partners wishing to join. Each individual ride up to 25 rides/month is provided at no immediate cost to the rider but requires a monthly payment of nine dollars in addition to the eleven-dollar monthly bus pass fee through the broader TD program. After verification of income, riders may choose from which provider they would like to receive

rides. Ride restrictions are such that each trip must occur between the hours of 10:00pm and 6:00am and cannot leave Pinellas County.

Uber, United Taxi and Care Ride signed up as participants in 2016 and continue to conduct rides. PSTA reported that Uber was initially reluctant to share trip data, inhibiting the ability of program managers to verify that rides were being used strictly for work trips. Media inquiries eventually pressured Uber to comply with information reporting. One finding from having access to Uber's ride information was that the average trip cost of program rides was between \$11 and \$16. This put the value of the 25 free rides at roughly \$300 per month. Ride costs were reimbursed through public funding.

PSTA evaluates the success of their program based on the number of participating residents and assumes that because residents must be pre-qualified for use, most would not have been able to maintain employment at a nighttime job without TD Late Shift. As of September 2018, the program had seen up to 400 people use the program per month with an average of 14 trips per person per month. Budget constraints have periodically affected program operations and resulted in halting the application process and new rider acquisition in 2017. In April of 2018, budget concerns forced the program to actively scale back from the 4,730 trips it experienced that month. It had also been observed that the program experienced high rider turnover and they hypothesized that expenses could be reduced through attrition. The agency is continually looking for further funding sources (Curtis et al., 2019).

2.4.2 GoDublin!

The Livermore Amador Valley Transit Authority (LAVTA) operating out of Livermore, California implemented the GoDublin! transportation program to provide affordable on-demand services to area residents. In 2016, LAVTA reviewed its fixed-route bus system and closed routes they determined were not meeting productivity standards, leaving less populated areas with limited service. In order to continue to provide some form of services to people in these areas, the transit authority contracted with Uber, Lyft and DeSoto Cab Company, the latter sought out for its ability to accommodate wheelchair-accessible rides, cash payments and over-the-phone ride requests. The program launched in January 2017 and is slated to continue through June 2019. Through a grant from the Alameda County Transportation Commission and LAVTA marketing funds, the program is able to offer a 50% discount for trips that begin and end within the Dublin city limits.

This program had no income restrictions for riders nor was it restricted to employment trips. One of the intentions behind limiting its use to within Dublin city limits, however, was to facilitate rides to and from Bay Area Rapid Transit (BART) stations. According to their reporting, evaluation of the GoDublin! program will examine indicators such as cost per trip, total ridership numbers, and trip origin and destination information. Preliminary evaluations showed their initial ridership at 1,000 riders with an average trip cost of just over three dollars. Additionally, they were able to determine that the most common trips taken were between neighborhoods and BART stations, an early indicator that the program was functioning as

intended. One of their goals is to determine the frequency of rides that contain multiple passengers in order to realize further efficiency (Curtis et al., 2019).

2.4.3 Scoop

In 2017, the Contra Costa Transportation Authority (CCTA) in Contra Costa, California partnered with Scoop Technologies, Inc. in an attempt to resolve its commute gridlock issues. Using \$30,000 in funding from Measure J, a half-cent sales tax for transportation in the county, and the Bay Area Quality Management District's Transportation Fund for Clean Air, CCTA will pay two dollars per ride for commuters abandoning single-vehicle travel and utilizing Scoop's rideshare services.

Scoop is a Silicon Valley based tech company that provides a web- and app-based platform to coordinate shared rides for commuters. It presents a unique example for employment transportation in that, similar to Uber, Lyft and other TNC companies, it relies on drivers that are independently contracted and maintain their own vehicles. Predominantly operating in northern California and Seattle, Scoop's business model incorporates partnerships with employers and public agencies for both rider acquisition and, in some cases, funding incentives (Douglas, 2017).

Chapter III: Commute to Careers Program

3.1 Union Cab Cooperative of Madison

Founded in 1979, Union Cab of Madison Cooperative fields the largest taxi fleet in Madison, Wisconsin. It formed as a worker-owned cooperative after several years of labor organizing in the local taxicab industry. In 2015, it had a total workforce of 277 members and 77 cabs (Union Cab, 2019). Its mission is to create living wage jobs in a safe, humane, and democratic environment while providing quality transportation services. Union Cab's drivers are expert; they pass a background check and receive formal training in disability, sensitivity, and defensive driving. Union Cab operates a traditional hailed-ride service that accommodates business accounts, accessible rides, and non-emergency medical transportation. It is a member of the Dane County Specialized Transportation Commission and has participated in regional planning for human service transportation coordination. Union Cab's unique culture of civic engagement and labor-focused values contributed, in part, to its involvement in employment transportation through the CTC program funded by the Wisconsin Department of Workforce Development (DWD).

3.2 Wisconsin Department of Workforce Development Commute to Careers Program

In March 2013, the Wisconsin Department of Workforce Development created the Fast Forward (WFF) program through the DWD to provide grants for worker training initiatives to increase the state's skilled workforce (WI Act 9, 2013). The training projects sought three levels of public benefit: (1) employees would gain transferable skills, receive higher wages, and further their career development; (2) businesses would gain access to a skilled workforce and become more competitive; and (3) the state would receive an economic return on public investment (Atkinson, 2019).

In 2018, WFF partnered with the Wisconsin Department of Transportation (WisDOT) to provide over \$3 million in grants for flexible transportation projects delivered by private entities that can demonstrate a need for connecting "unemployed, low- and moderate-income workers" with opportunities for employment (DWD, 2018). Aimed at resolving issues surrounding access to jobs, CTC funds projects to create flexible and affordable transportation programs that can be sustained beyond the grant funding period. The program builds off of the WFF concept of employer participation by emphasizing partnership and investment in order to gain access to a larger labor pool and to minimize transportation-related employee turnover.

In September of 2018, Union Cab applied for \$240,000 in funding from the DWD and was ultimately awarded \$133,557 to launch their CTC program. Grants were awarded as cost reimbursement contracts, with a start date of October 15, 2018. Upon contract execution, award recipients were allowed to incur costs. All grant expenditures must be completed in 24 months,

by October 14, 2020, and costs, including match, must be incurred between contract execution and end dates. The grant award is intended to support 24 months of activity.

3.3 Union Cab Commute to Careers Program Established

Union Cab began serving CTC rides in December of 2018, establishing a program providing curb-to-curb transportation to and from work, inclusive of job training and interviews. The program uses a fleet of minivan and sedan taxis to provide access to employment sites. The Union Cab CTC program offers mobility at a fixed fare of \$5 per ride—a much lower price than other available transportation options. The program’s intent was to gain and coordinate the resources of employer partners who help subsidize their employees’ fares, creating a sustainable, community-focused transportation model. These partnerships would optimize resources, allowing for service expansion to more areas in Dane County, commensurate with CTC program expansion and Union Cab’s resulting growth.

3.4 Commute to Careers Program Overview

The Union Cab CTC demonstration project was designed to test a model for connecting the workforce, particularly those with lower incomes, to regional employers. A primary goal of the project is to develop a sustainable, affordable, effective model of shared transportation for low-density areas that are underserved by transit. The Union Cab CTC project harnesses the idea that employers and workers each benefit from the commute and share its value. Where shared value exists, stakeholders have incentive to cooperate in planning and sharing costs. The project effectively provides a platform for forming and maintaining strategic partnerships between employers, workers, and community organizations. The project model uses collaborative planning to develop and implement an affordable, flexible, demand-responsive transportation service that connects workers/users to jobs/opportunities that are not readily accessible to them (Innes and Booher, 2010).

The CTC service is generally available to low-income individuals in the Madison metropolitan area who lack a vehicle, who are not within walking distance of a bus line, who work shifts outside of scheduled public transit hours, or who otherwise face transportation obstacles in traveling for work-related purposes, i.e., to jobs and to job interviews. These services are available 24 hours per day and 365 days per year, including weekends and holidays. Certified and/or licensed personal care attendants and service animals are accommodated at no additional cost, though such disclosures for these and other accommodations, such as wheelchair accessibility, must be made by the customer at the time of registration. Intermediate stops to pick up prescription medications or to drop off children at school or daycare are permitted.

The ridership has been built from individual requests for service and from businesses looking to arrange travel for their employees. Ideally, these employer “sponsors” will subsidize fares as a benefit to their workers. Project administrators have recently begun exploring

partnerships with municipal government bodies and chambers of commerce to further promote the service with businesses in areas outside the Madison metro area.

Figure 3 depicts main program components, including the roles of employer sponsors and municipal government partners.

- **Program Information:** A phone number and email address for general information is included on the Union Cab website and is printed in distributional program materials and answered by Union Cab’s business manager. For individuals seeking registration who are employed by a company that is an existing program sponsor, they are directed to that sponsor to confirm eligibility for inclusion in the rideshare based on the geographic location of their residence and place of employment, and their annual income.
- **Rider Intake and Registration:** The Department for Workforce Development determines eligibility rules for riders served using funds from their Commute to Careers grant. Eligibility requirements may vary if employee sponsors impose further restrictions to control costs. Sponsors submit to Union Cab the registration forms with the names and addresses of their employees requiring transportation.
- **Trip Scheduling:** Prospective employer sponsors and riders call the listed Union Cab number to schedule CTC trips or to request changes. Trips are thus scheduled on-demand or for a future date, and either one-time or recurring.
- **Trip Provision:** Union Cab dispatch schedules each trip based on pooled ride cost-saving calculations. Trips may be served by taxi sedans, minivans, full-sized vans, and vans equipped with lifts for paratransit. Program fares (fees) are \$5.00 per ride, regardless of mileage, and \$1 for each added stop.
- **Reporting and Billing:** Union Cab undertakes reporting and billing responsibilities.

Additional information on each of these functional areas is provided in subsequent diagrams in this section and discussed in more detail in subsequent sections.

Functional Program Overview

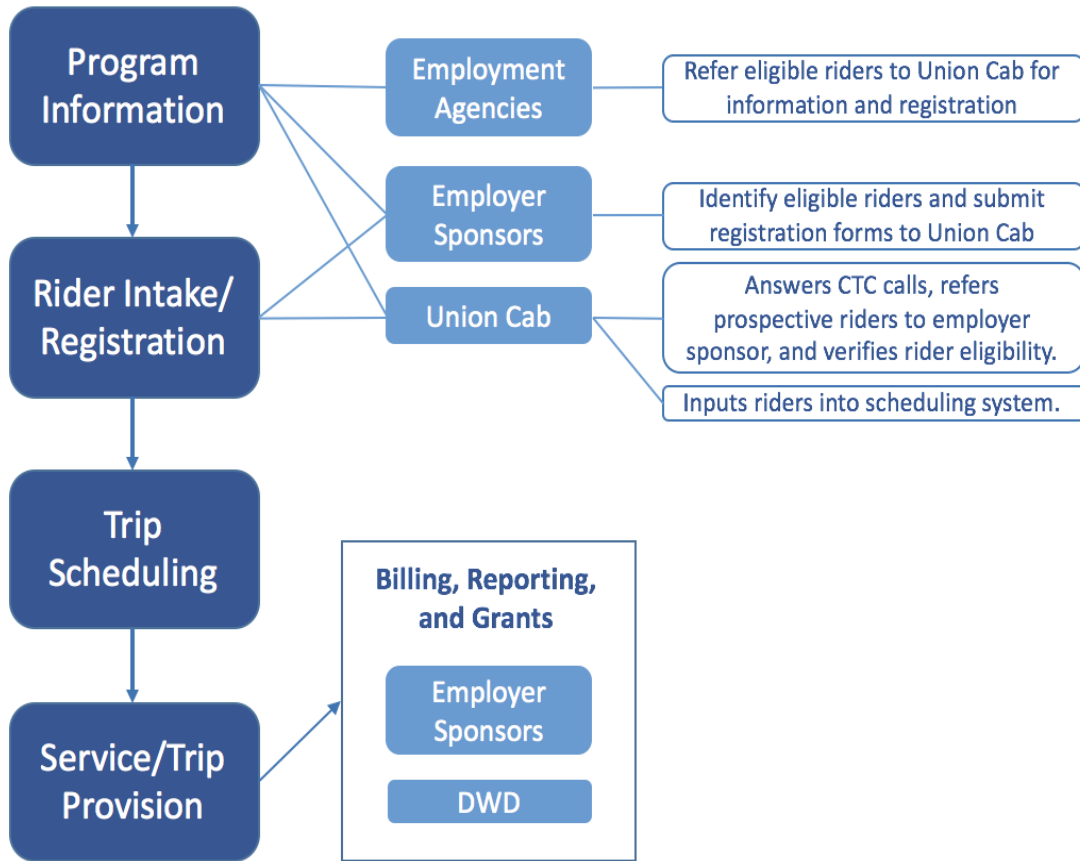
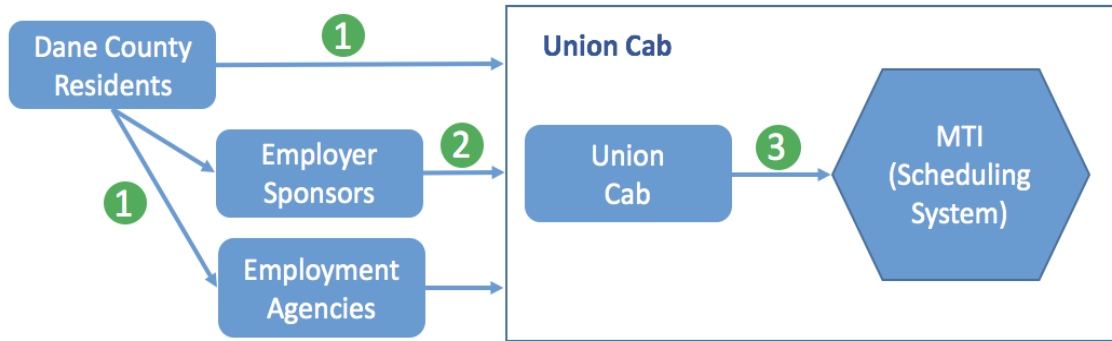


Figure 3. The logic model of the service. Success means: 1) forming lasting partnerships with employers and community organizations that outlive external, grant-funded support; 2) providing reliable, affordable, convenient service to passengers and employers who receive measurable economic benefit from participation; and 3) creating innovation in Union Cab's business and operations to compete with TNCs in a changing market for transportation.

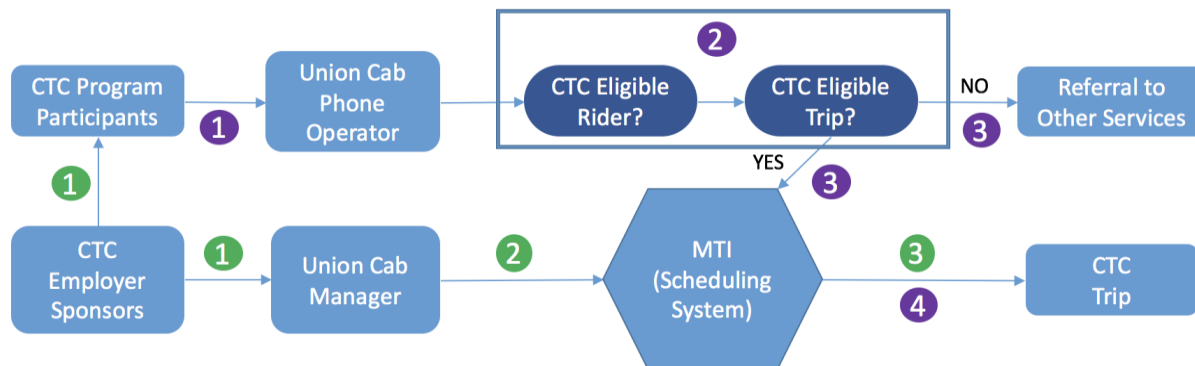
Rider Intake/Registration



- 1** Prospective riders are referred to Union Cab in three ways: 1) via an employment agency; 2) via an employer; 3) directly.
- 2** Employer sponsors email employee rider registration forms to Union Cab
- 3** Union Cab enters rider information into MTI; if the rider(s) are through a new employer sponsor, a new business account is also established.

Figure 4. The rider intake aspect of the program. Each employer sponsor verifies rider eligibility, e.g., residence in Dane County, income, transportation need, and completes a registration form, which includes information such as customer name and address, mobility device requirements, shift schedule, etc. Sponsors email registration forms to Union Cab, which enters them into their trip scheduling/dispatch system (MTI).

Trip Scheduling and Service Delivery



Individual Model

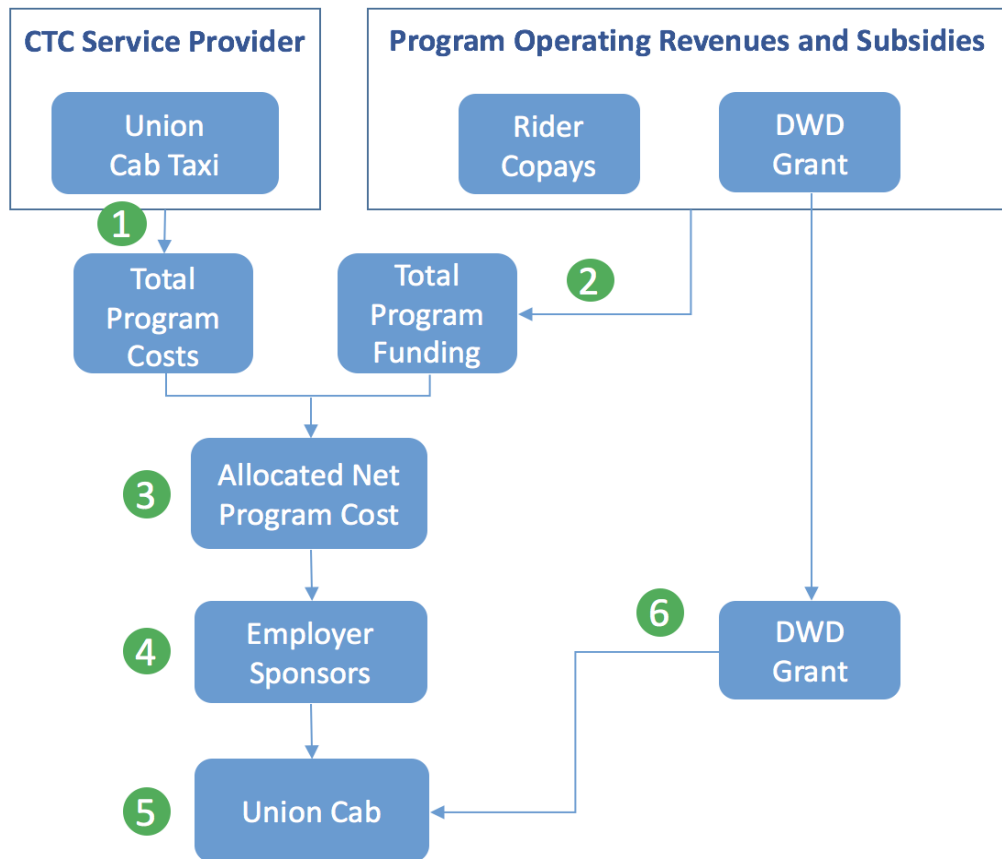
- 1 Prospective riders call a Union Cab phone operator to schedule a ride.
- 2 Union Cab screens riders to ensure eligibility for program participation.
- 3 Eligible rider trips are entered into the MTI scheduling system. Ineligible riders are referred to other services.
- 4 Eligible riders are assigned to cab carpool routes based on the lowest ride fare.

Employer Sponsored Model

- 1 Employer sponsors submit a list of employee riders to the Union Cab manager.
- 2 Riders are assigned to cab carpool routes based on the lowest ride fare, and rides are scheduled into MTI.
- 3 CTC trips are fulfilled at the scheduled times.

Figure 5. The process for scheduling and delivering trips. The centralized dispatch function provided by the Union Cab call center offers riders a single-call access to demand response transit services for eligible individual riders. Employer sponsored riders are scheduled for regular trips in the system, with schedule changes ordered either by employers or riders. The latter model offers a more cost-effective service designed to increase economy for both riders and sponsors.

Program Operating Costs, Revenues, and Billing



- 1 Union Cab incurs costs through services rendered, minus the copay fares received.
- 2 Union Cab applies copay fare revenue, and percent of the ride cost covered by DWD grant funds.
- 3 Union Cab allocates net program costs to each employer sponsor based on their share of employees' total monthly trips and miles.
- 4 Union Cab invoices employer sponsors at the end of each month.
- 5 Employer sponsors pay Union Cab.
- 6 Union Cab submits reimbursement request for the remainder of ride costs to DWD at the end of each fiscal quarter.

Figure 6. The components of program costs and revenues and the process for allocating net costs to sponsors.

3.4 Participant Roles and Responsibilities

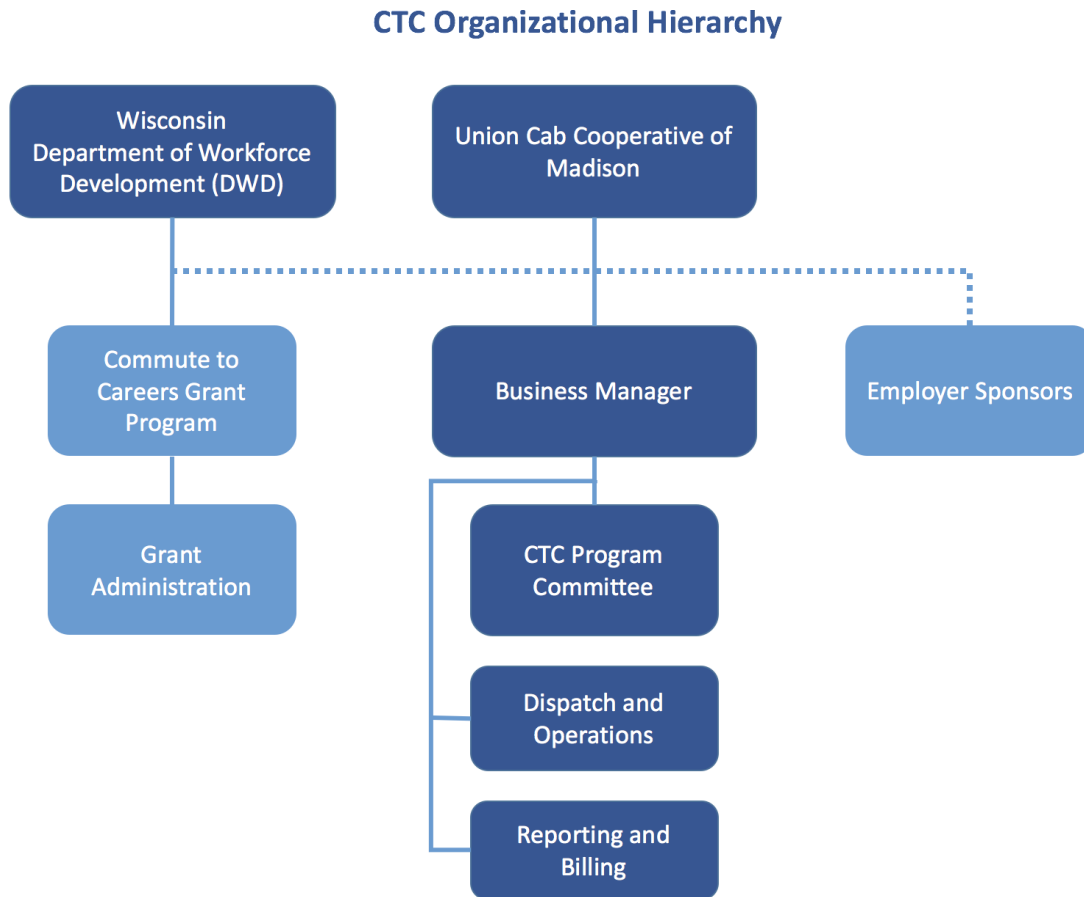


Figure 7. The relationship between the various entities involved in the CTC program. The roles and responsibilities of various actors are determined by Union Cab’s organizational structure as the central organization implementing the CTC program, and the DWD’s grant reporting system. The Union Cab Business Manager bears responsibility for coordinating and allocating roles and responsibilities within Union Cab and with the UW Madison research team as a part of CTC Program Committee (project team) cooperation.

3.4.1 Governance

The Union Cab CTC Program Committee, led by two Union Cab managers and joined by a research team from the University of Wisconsin - Madison, helps to develop policy, establish guidelines for ride services, implement strategies and recommendations of the DWD, examine further strategies, and incorporate feedback from beneficiaries and Union Cab employees to refine service provision. Union Cab, with input from the UW–Madison research team, establishes the policies, fare structures, and operating procedures for CTC.

3.4.2 Policies and Procedures

CTC policies are determined by the CTC Program Committee, which demonstrates a commitment to filling a critical gap in employee transportation in order to accommodate the unmet travel needs among low-income workers in Dane County. The team also addresses and ensures compliance with DWD administrative procedures for grant reporting, trip restriction, and rider eligibility. Policy discussions are raised at weekly group meetings. Additional program-wide operational policies were established by the group to address the high administrative costs of no-load rides, variable payment methods and payment inconsistencies, passenger comportment, and program abuse. Appendix B provides the current version of the program's rider policy.

Union Cab's CTC Program Committee meets weekly with updates on rider issues, project performance and implementation strategies. Additionally, Union Cab provides quarterly program reports to DWD with details about riders and employer participation and budgetary concerns. For each funding cycle of operations, program sponsors enter into a formal agreement with Union Cab to commit financial resources and to acknowledge agreement with the CTC program administrative procedures.

3.5 Administrative Partners

3.5.1 Wisconsin Department of Workforce Development

Through the Wisconsin Fast Forward initiative, DWD administers the Commute to Careers grant program. It is their role to receive, and act upon, reports generated by grant recipients throughout the life of the grant. In addition, DWD has reached out to grant participants soliciting feedback on what further support they can provide, specifically in marketing and outreach. Representatives from DWD are tasked with ensuring that grant recipients are managing their programs effectively and responsibly.

3.5.2 Union Cab of Madison Cooperative

Union Cab operates the Madison area's largest taxi fleet and provides door-to-door rides for the program. CTC managers within Union Cab are responsible for handling program related billing and invoicing, rider intake, strategic program decision-making, and submitting quarterly reports to DWD. The program is integrated into Union Cab's daily operations and employees within the company handle ride scheduling and dispatch for CTC alongside normal rides.

3.5.3 Sponsors

Employment agencies within Dane County referred the initial riders to the program. As information about CTC spread via word-of-mouth, prospective riders with transportation barriers contacted Union Cab to inquire about the "rides to work" program about which they had heard.

Extensive communication has been undertaken to incorporate a municipality just outside Madison city limits as a program sponsor and further efforts are planned to similarly partner with other nearby municipalities.

3.6 Program Design

The project model is an industry-community-university partnership. It has three interrelated objectives: (1) innovate Union Cab's taxi service by creating new products, service delivery models, and pricing; (2) increase car mobility options for Dane County residents, particularly those in rural, small, and low-density places, who do not drive and who do not have car access; and (3) help employers and other anchor institutions achieve their economic and social goals by directly increasing access.

The project uses two methodologies. The first methodology is negotiation-based, collaborative planning. This is the methodology through which Union Cab will collaborate with employers and other anchor institutions to identify their shared value of employee mobility in order to create, fund, and pilot the new commute service as a company benefit. The second methodology is used for evaluating the impacts of the pilot program. We will design a cohort-based evaluation strategy to measure the program's effect on participants (passengers and institutions) in relation to appropriate comparison groups. This involves substantial data collection and quantitative and qualitative analysis to identify welfare changes resulting from the pilot program. Impact metrics include operations information such as number of rides, demographic characteristics of workers, and economic outcomes such as increased retention for participating employers and increases in employee wages. These results will be developed and discussed in an evaluation process that includes all stakeholders. The logic model for this program design is represented in Figure 2, below.

Logic Model: Union Cab Commute to Careers

The **overarching goal** of this initiative is to enable individuals in the Madison metro area who are un-/underemployed and who lack the necessary transportation means to effectively access current or prospective employment.
 The **mission** of this initiative is to provide transportation services via a trunk and feeder route, carpool service to people with unsecure employment in the Madison metro area in order to access pools of prospective employees to expand operations, to improve job retention, to reduce the number of missed shifts, and to improve both individual and household socioeconomic outcomes.

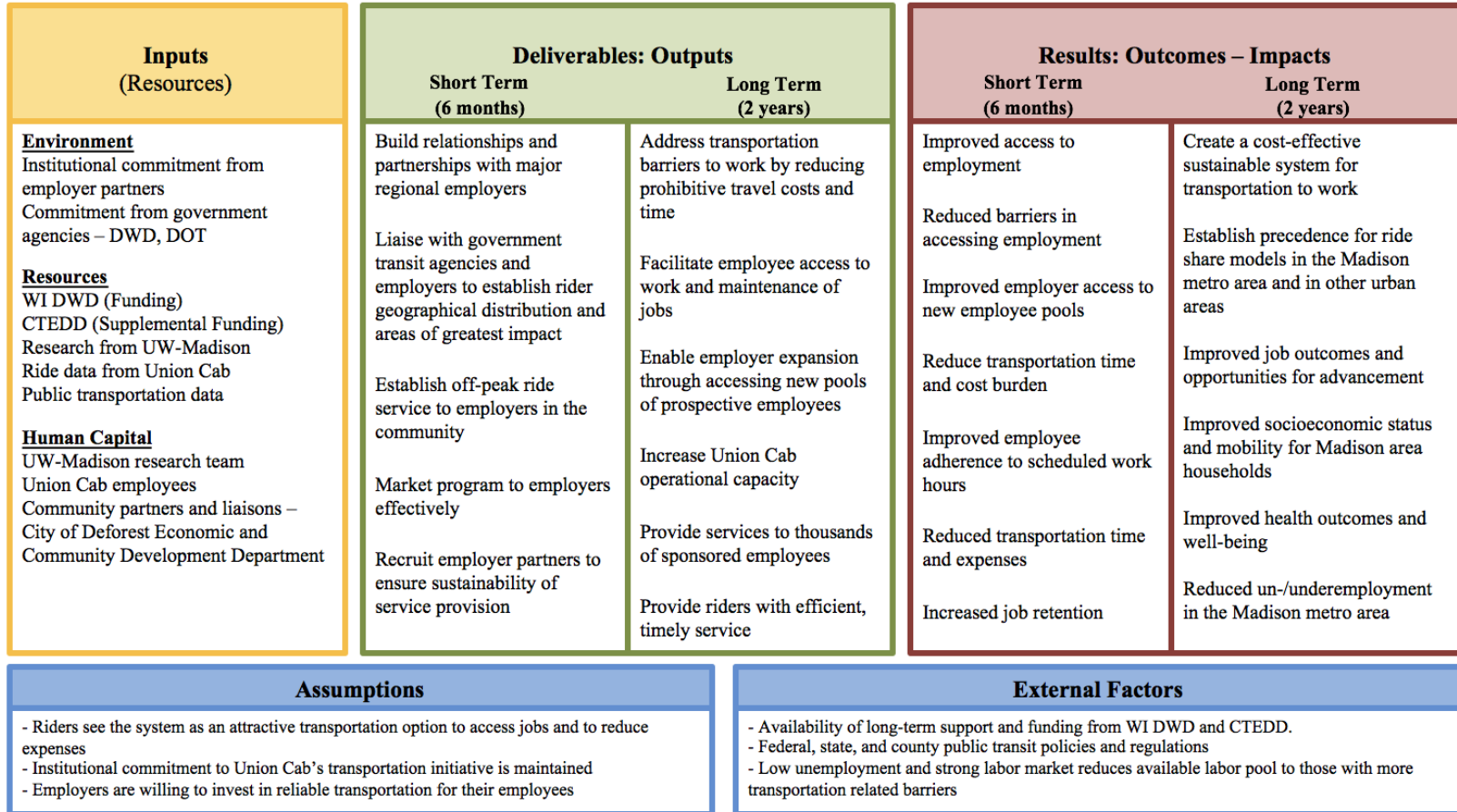


Figure 8. The logic model that underlies the Union Cab CTC Program’s operations. Short-run and long-run deliverables and outcomes are projected in the context of program inputs, assumptions, and external factors and are aligned with the program’s overarching goal.

3.7 Program Funding

Union Cab's CTC project was created in partnership by the Wisconsin DWD and WisDOT and is funded in part by the Federal Transit Administration (FTA) and the WisDOT Transportation Employment And Mobility (TEAM) program. Union Cab's grant proposal requested \$240,000 for project design and implementation and received roughly \$133,000 in grant money.

3.8 Cost Allocation

One of the goals of the demonstration project is to determine an effective distribution of costs between program participants. Because MOD and innovative transportation programs are most successful when customized to the local environment (Shaheen et al., 2018), an examination of precedents only provides more general suggestions of how best to allocate costs among partners. Union Cab has begun implementation with riders contributing \$5.00 per ride and grant money accounting for the remaining cost of the ride. The program model aims to transition to one in which employer funds replace grant funding.

Chapter IV: Program Evaluation

4.1 Data and Methods

We employ a case study research design in which we combine several types of data collection and analytical methods. Data include surveys of riders, taxi operations, in-depth interviews with employees, project team correspondence and meeting notes, and interviews with stakeholders such as prospective employer partners and workforce development organizations. This approach allowed us to analyze the demonstration project along with its organizational, institutional, and transportation contexts.

We contextualize this multilevel evaluation approach within the RE-AIM framework, a reporting method developed in the health care sector to evaluate the broader impact of public health interventions (Glasgow et al., 2019). We selected the RE-AIM framework because of its consistent reporting structure that focuses on impacts at both the individual and organizational levels. The five lenses of RE-AIM are: Reach, Effectiveness, Adoption, Implementation, and Maintenance. The first two categories focus evaluation on the individual level, the third and fourth categories focus on the organizational level, and the final category covers both levels. We evaluate impacts to CTC riders across the reach and effectiveness categories, while employer partners and Union Cab are evaluated across the adoption, implementation and maintenance categories.

Evaluating the program's reach entailed examining the initial target population, determining how that changed over the duration of implementation and identifying any associated challenges. Our goal in evaluating effectiveness was to discern whether the program impacts employment access, job stability, housing stability, or access to health care. We examined program adoption by reporting on the participation characteristics of employer partners and the challenges that arose in initiating those partnerships. Implementation was evaluated by examining current employer program usage. Finally, evaluation of program maintenance consisted of examining the degree to which the program was institutionalized within Union Cab and employer partners.

Through this process, we identified three aspects of Union Cab's CTC program as focus areas for evaluation: 1) its integration within Union Cab's daily operations; 2) its impact on employers and workers; and 3) its potential as a sustainable, generalizable model for reducing mobility gaps in the transportation system and a path for traditional taxicab companies to innovate their services. All research involving human subjects was reviewed and approved by the Education and Social/Behavioral Science Institutional Review Board at the University of Wisconsin-Madison.

4.2 Survey of Riders

We developed the survey instrument based on prior studies of transportation barriers experienced by the current and prospective working population. It includes questions about transportation, employment, and health status, as well as demographic information (Appendix C). We adapted most questions from the U.S. Census Bureau, National Household Travel Survey, Current Population Survey, and Locatelli et al. (2017). The survey was independently reviewed for clarity and content by team members and tested by colleagues who were unaffiliated with the study.

Surveys were delivered to all 81 unique riders who were involved in CTC as of June 1, 2019, either electronically via the UW-Madison Qualtrics platform or telephonically, if requested by the respondent. Surveys took between 15 and 20 minutes to complete and asked respondents about their demographic information, employment, transportation and self-reported health. Each respondent received a \$10 gift card for their participation. A total of 31 responses were collected and included in this analysis. Completed surveys were de-identified for analysis using numeric codes. Data were cleaned using Microsoft Excel and summary statistics were computed using Stata/SE 15.0.

4.3 Taxi Operations and Organizational Data

4.3.1 Ride Data

Union Cab collected comprehensive data about all CTC rides and exported it into Microsoft Excel spreadsheets that were updated daily. Operations data included in this analysis reflect services rendered from January 1, 2019 through May 31, 2019 and consisted of 2,134 rides taken by 81 individual riders. Data were cleaned in Microsoft Excel and analyzed using R Studio. Seven rides taken by one individual rider to and from a remote employment location were excluded from the summary data as they represented a unique situation and were statistical outliers. We discuss these rides qualitatively in the analysis.

4.3.2 In-Depth Interviews with Employees

We conducted formal interviews with four Union Cab employees from different departments: management, finance, vehicle operation, and phone answering/dispatch. We recruited participants directly through e-mail and each interview lasted between 30 minutes and 1 hour. We recorded the interviews, transcribed the recordings, and analyzed the transcripts for key themes. We asked each person about the nature of their work at Union Cab, their interaction with the CTC program, how the program has affected their work, and what benefits and challenges they have perceived.

4.3.3 Correspondence and Meeting Notes

Over 200 email communications with Union Cab employees were collected from August 1, 2018 to June 31, 2019 and parsed for key elements of program development and operations decisions. Meeting minutes were taken by our research team members and aggregated. A total of 37 meetings were also parsed for key elements. Information was entered into Microsoft Excel and thematically organized.

4.3.4 Stakeholder Informational Interviews

We interviewed nine representatives from various workforce development, employment, and transportation agencies and met with 13 prospective employer partners to better understand the labor-access issues they face. Methods of contact included phone calls, email inquiries, networking at job fairs and conferences, and seeking informational meetings from regulatory agencies. Audio recordings and notes from these meetings, together with related correspondence, were parsed for relevant insights on program design and the service needs of employer partners.

4.4 Ridership Characteristics

Preliminary results characterizing the CTC ridership are presented in Table 2. For the 31 respondents mean age was 34 years, with a minimum of 19 and maximum of 55 years, demonstrating that the program is reaching a broad range of age groups. Women represented 58% of the respondents. Approximately 58% of respondents were African American, just over 6% came from other minority groups, and 19% were white. None of the riders identified as Latino/a. Nearly 55% completed the equivalent of a GED, while another 29% reported having finished some college. Sixteen percent of respondents had completed an associates or technical degree (12.9%) or bachelors degree (3.2%). Nearly 55% of respondents reported a personal income of \$0 to \$10,000.

About 97% of respondents indicated that they used the program to ride to work, and over 34% used it to access job interviews and job training. Most respondents who are employed (n=25) indicated reliance on public transportation, shared rides, and the CTC program to access their primary job. Of these respondents, 7 (28%) reported that if their primary mode of transportation to work were unavailable, they would have no alternative and would miss a day at work. Just under 68% of respondents reported having no access to a vehicle, with 51.7% of the total households represented owning zero vehicles.

Table 2. Descriptive statistics for respondents of the Commute to Careers Rider Survey (n=31)

Category	Sample Frequency (n)	Sample Percentage (%)	Category	Sample Frequency (n)	Sample Percentage (%)
Demographics (n=31)			Work Schedule Hours		
Age (yrs)			Stable Hours	13	52.0
18-29	13	41.9	Hours Vary – Personal Request	3	12.0
30-39	8	25.8	Hours Vary – Employer Needs	9	36.0
40-49	6	19.4	Pay Scale		
50+	4	12.9	Hourly	24	96.0
Gender			No Response	1	4.0
Female	18	58.1	Work Benefits (n=22)		
Male	12	38.7	None	13	59.0
No Response	1	3.2	Retirement/Pension Plan	4	18.2
Race			Medical Care/Health Insurance	6	27.3
Black/African American	18	58.1	Paid Holidays	5	22.7
White	6	19.4	Paid Maternity/Paternity Leave	2	9.1
Asian	1	3.2	Paid Time Off/Personal Leave	4	18.2
American Indian/Alaska Native	1	3.2	Paid Sick Leave	4	18.2
No Response	5	16.1	Paid Vacations	4	18.2
Education			Childcare Assistance	1	4.5
Less than high school graduate	3	9.7	Transportation Assistance	2	9.1
High school graduate/GED	14	45.2	No Response	2	9.1
Some college	9	29.0	Health (n=31)		
Associates/technical degree	4	12.9	Health Insurance		
Bachelor's degree	1	3.2	Medicaid/Medical Assistance	11	35.5
Income Level (USD)			Employer-Sponsored	5	6.2
\$0-\$10,000	17	54.8	Through Family Member	3	9.7
\$10,001-\$20,000	4	12.9	Veterans (VA)	1	3.2
\$20,001-\$30,000	4	12.9	None	3	9.7
\$30,001-\$40,000	3	9.7	No Response	8	25.8
No Response	3	9.7	Medical Condition - Travel		
Transportation			No	26	83.9
Transportation to Work (n=25)			Yes	5	16.1
Private Vehicle	4	16.0	Transportation to Doctor		
Taxi/Uber/Lyft	9	36.0	Bus*	10	32.2
Carpool/Rideshare	6	24.0	Taxi/Uber/Lyft*	6	19.4
Bus	6	24.0	Drive - Themselves	3	9.7
Rental/Car Share	1	4.0	Drive - Someone Else	3	9.7
Ride – Friend/Relative	6	24.0	Paratransit/Specialized	1	3.2
Bicycle	2	8.0	Walk	4	12.9
Walk	5	20.0	None	1	3.2
Union Cab CTC	14	56.0	No Response	3	9.7
Vehicle Availability (n=31)			*Prohibitive Cost - Transit		
No access	21	67.7	Yes	9	56.3
Mostly unreliable access	3	9.7	No	6	37.5
Access half the time	4	12.9	No Response	1	6.2
Access all the time	1	3.2	Travel Trouble to Doctor		
No Response	2	6.5	None	7	22.6
Destination (n=29)			A Little	6	19.4
Work	28	96.6	Some	12	38.7
Job Interview	5	17.2	A Lot	5	6.2
Job Training	5	17.2	No Response	1	3.2
School	1	3.4	Missed Doctor Appointment		
Employment (n=25)			Yes	18	58.1
Employment Type			No	8	25.8
Employed	17	54.8	No Response	5	16.1
Underemployed	8	25.8	Missed Prescription Refill		
Unemployed	6	19.4	Yes	11	35.5
			No	17	54.8
			No Response	3	9.7

Just over 83% of African American respondents reported having no access to a vehicle. Among all African American respondents, we found a statistically significant correlation between income over the past 12 months and vehicle availability, with vehicle access declining with decreasing income tiers (95% CI; $p=0.000$).

About 55% of riders worked 35 hours or more per week, the equivalent of full-time employment (FTE). Approximately 26% were underemployed with either stable or varying work hours that summed to less than FTE, and over 19% reported being unemployed and in the process of searching for a job. Nearly 20% of employed riders hold two jobs, most to attain FTE hours. Reasons for working part-time included transportation barriers, only being able to secure seasonal/temporary/intermittent work, childcare problems, and school/training. Forty-eight percent of working respondents reported varying work hours, and 36% of these individuals' schedules were subject to change based on employers' needs, with over one-third receiving schedule change notices in one day or less. Ninety-six percent of all employed respondents were paid on an hourly wage scale. Fifty-nine percent of riders received no benefits with their employment, with just 27.3% receiving employer-sponsored health insurance and 18.2% receiving paid time off or paid sick leave. Only 4.5% received employer assistance for childcare and 9.1% received employer assistance for transportation.

Most respondents reported relying on Medicaid or other government-provided health insurance, with an additional 10% relying on insurance through a family member and 3% through Veterans Affairs. Cumulatively, over 64% of the sample population expressed having a little, some, or a lot of trouble traveling to their doctors, and 16% reported that a medical condition affected their travel. Nearly 52% rely on public transportation to access their doctor, whereas only about 10% drive themselves. An additional 10% rely on others to drive them, while nearly 13% walk. Of those who rely on public transportation, a majority (56%) indicated issues with prohibitive costs posing a barrier to accessing health care services. Over 58% missed a doctor appointment due to such travel barriers, citing car issues, not having a ride, having insufficient funds for public transit, and the bus arriving late. Nearly 36% also missed prescription refills due to these barriers.

4.5 CTC Program Operations

Participation in the CTC program ranged from one-time rides (12.3% of riders) to 149 days for the longest-tenured rider. The average length of program participation was just over 34 days. As indicated in the survey results, many riders experienced uncertainty in their work schedules. The frequency of rides taken per week per rider ranged from one (18.5% of riders) to just over 10 (1 rider) with an average weekly usage of 3.5 rides per rider.

Average ride duration was just over 12 minutes with a maximum of roughly 36 minutes and a minimum of just under 3 minutes (Table 2). Maximum ride distance was over 19 miles, while the average was about 6.5 miles. The notable outlier had a ride duration of 117 minutes.

Sixty-two percent of rides occurred during Union Cab’s peak operational hours, from 6:30 to 9:00 AM and 2:00 to 5:30 PM, with the remaining 38% of rides served off-peak.

Table 3. Five-month program operations statistics summary

Full Sample; n = 2,134 Rides (81 Individual Riders)			
Ride Lengths		Program Duration	
Mean Ride Distance (miles)	6.57	Mean Rider Tenure (days)	34.5
Max Ride Distance (miles)	19.7	Max Rider Tenure (days)	149
Mean Ride Duration	00:12:15	Mean Rides/Week	3.5
Max Ride Duration	00:36:03	Max Rides/Week	10.4
Min Ride Duration	00:02:57		
Ride Costs		Ride Times	
Mean Ride Fare (US Dollars)	\$25.47	Peak Business Hours	1,323 (62%)
Max Ride Fare (US Dollars)	\$64.90	Off-Peak Business Hours	811 (38%)
Min Ride Fare (US Dollars)	\$4.70		
Mean Cost/Mile (US Dollars)	\$3.87	Passengers	
Co-Pay % of Total Cost	6.61%	No-Load Rides ²	266 (12.5%)
% of Riders with full co-payment	13.6%	Cancelled Rides	2 (0.1%)
		Shared Rides	34 (1.6%)

¹ Rides when a passenger does not cancel ahead of time and does not show up for the ride.

Costs per ride were based on Union Cab’s retail rates and do not reflect the riders’ \$5 co-pay. The average cost per ride was \$25.47 and the maximum cost was \$64.90. Union Cab reimbursed drivers \$4.00 for each no-load ride, which accounted for 266 rides, or 12.5% of all rides. A no-load ride is when a driver arrives at the requested location but no rider is present. The minimum ride cost, excluding no-load rides, was \$4.70, while the average cost per mile traveled was just under \$4.00. Rider co-pays accounted for 6.6% of total ride revenue (the maximum possible was 19%); only 13.6% of riders paid the entirety of co-payments owed. Shared rides accounted for only 1.6% of all rides.

4.6 Organizational Factors

Employee interviews about the CTC program and the challenges and benefits they have observed produced two key themes: organizational capacity and potential economic benefits to Union Cab. In addition, themes discussed in team meetings included reducing administrative burdens and costs, finding employer partnerships, and formalizing program-specific policies.

4.6.1 Organizational Capacity

Most of Union Cab’s employees interact with the program within the context of their usual responsibilities. Two employees—the business manager and assistant to finance—are central to program management. In addition to the business manager’s daily responsibilities, roughly 10 to 15 hours per week are dedicated to serving as the point person for the program. This includes working well outside of business hours to handle rider intake calls and accommodate individuals’ time-sensitive needs. Certain calls, particularly from workers employed through staffing agencies who have not been fully informed about their job location and shift time, require extra effort to acquire accurate information.

The assistant to finance also has detailed knowledge of program operations and dedicates roughly 10 hours per week to CTC. When conflicts arise between Union Cab’s core business and CTC, the latter is set aside, as there are no other personnel trained in program administration. Thus, new CTC account setups and analysis of dispatch system notes for tracking riders and co-pays can become backlogged.

Union Cab employees discussed hiring a designated CTC program manager. However, they express trepidation about hiring for a position that may be temporary due to limited grant funding. This lack of a designated program manager limits the capacity to fully implement all of the program components as originally planned.

4.6.2 Developing a Rider Policy to Reduce Administrative Costs

Union Cab noted that the relatively high administrative costs are due, in part, to transporting workers with variable hours and job locations. Other administrative costs included troubleshooting no-load rides, collecting missing co-pays and developing easy ways for riders to pay, managing instances of problematic rider comportment, and a variety of forms of attempted program abuse. A rider policy was created to clarify expectations, prevent confusion, and reduce the time spent troubleshooting.

No-Load Rides: Several riders incurred missed rides, no-loads, and did so repeatedly. The overall no-load rate for January through May 2019 was 12%, which is higher than other business accounts. Union Cab employees stated that no-loads are not unusual and should be limited and penalized in program protocols.

Payment Methods and Inconsistencies: All riders are asked to pay \$5.00 per ride. The first cohort of riders received a two-week grace period allowing them to pay upon receipt of their first paycheck. Instances where riders changed employment and requested a second grace period resulted in uncertainty and added to program costs. In addition to inconsistencies in payment frequency, variations in methods of payment also created confusion. Most riders made cash payments to the driver; others set up accounts with the main office. Thus, the CTC team adopted the policy of extending leniency toward riders regarding the method and time of payment, if given sufficient notice. A Union Cab director commented, “when whether or not people need to pay \$5 changes constantly and where they are going is fluid, our operators will be frustrated.”

Passenger Comportment: Emails circulated detailing issues with rider comportment, primarily regarding perceived disrespectful behavior toward Union Cab employees. A small number of riders verbally abused phone operators and exhibited rude behavior toward drivers. Though employees mentioned that cab companies frequently deal with these issues, the team felt that an explicit code of conduct, along with detailed consequences, should be included in the rider policy.

Program Abuse: It was difficult for coordinators to determine what constitutes an acceptable ride to a work location versus program abuse. One rider notified Union Cab about frequent address changes due to unstable housing. Other riders have worked jobs that require multiple destinations, such as in-home caregiving. A Union Cab dispatcher indicated that it is problematic to observe origins and destinations constantly changing because then the ride is flagged as potential abuse. Coordinators expressed that, due to time and resource constraints, rides cannot be scrutinized in real time. If a rider was going to a place of business on one end of the ride, it was accepted in order to accommodate riders with unstable life situations. The team resolved that a weekly review of rides should be performed and that, if abuse is identified, it should prompt suspension from the program.

4.6.3 Recruiting Employer Partners

Union Cab meeting minutes indicate that, after an initial three months of program focus on recruiting individual riders resulted in higher than anticipated ride costs, the project team shifted to finding employer partners to subsidize ride fares. We established the following employer criteria: 1) being in proximity to other large-scale employers for ride-sharing potential; 2) having employees that work during off-peak hours; 3) having a history of investing in employees through transportation benefits; and 4) willing to work closely with Union Cab to customize the structure of their participation.

Meetings with prospective partners indicated that employer practices are predictive of CTC adoption. One employer partner had previously been paying full cab fares to transport some of their workers. An interested employer partner in a suburban location needed transportation for its third shift employees, one of whom had paid roughly \$35 per day in cab fares before eventually leaving. Another interested restaurant consortium stated that the CTC program fits with their commitment to employees and provision of transit passes. One prominent regional employer concerned about retention requested a pilot program for 34 entry-level shift employees for a period of 6 months to determine feasibility and cost-effectiveness.

4.6.4 Potential Economic Benefit of the CTC Program

A cab driver with 36-year tenure at Union Cab praised the program for giving drivers a guaranteed commission percentage for each ride and for providing a reliable source of rides. He indicated that a dedicated charge account for CTC eliminates uncertainty over customer payment. The driver also noted that under CTC, no-loads result in a \$4.00 compensation to the

driver. Employees cited that the CTC program may also provide indirect economic benefit to Union Cab by putting vehicles back on the road during off-peak hours.

4.7 Institutional Environment

Meetings with specialists in workforce development indicated that the region's low unemployment has significantly reduced clientele for employment case managers. Workers who are relatively easy matches for employers have already been placed in jobs, leaving those who face more barriers. According to interviews with a regional travel demand management planner, commute coordination programs are built primarily for those working traditional hours, not third-shift positions. They advised working with employers who are located in the central business district because they face high parking costs and might be willing to pay for shared rides.

4.8 Discussion

Our discussion of the findings is structured within the RE-AIM evaluation framework consisting of the following categories: Reach, Effectiveness, Adoption, Implementation and Maintenance.

4.8.1 Reach

Initially, the project team sought to reach a target population of low-income individuals facing employment-related transportation barriers. With this goal in mind, the team connected with a staffing agency to recruit the initial rider base.

Our survey data indicates that the program reaches hourly workers with low wages and low benefits whose working hours tend to vary and who have limited access to a vehicle. These challenges appear to disproportionately affect African Americans and those of younger age groups, which is consistent with the literature on barriers to transportation (Raphael and Stoll, 2001). We have also seen that this population primarily makes cash payments, a possible indicator of banking instability. These factors help create transportation barriers to work and other critical activities. For example, most of these individuals also rely on public transportation to visit their doctor. These findings are consistent with other studies characterizing populations with transportation barriers to healthcare access (Yang et al., 2006, Syed et al. 2013).

4.8.2 Effectiveness

Several observations from the evaluation data begin to indicate positive impacts. For example, the average duration of a CTC ride is only 12 minutes, which is roughly half the average public transit commute in Madison (United States Census Bureau, 2017). It is also just over half the average commute for single vehicles.

Anecdotes about riders highlight some of the secondary impacts of the program, where personal health, housing, and health care emerged as recurring themes. For example, Union Cab received a request for a one-time ride from a medical appointment back to work during peak hours because the rider was imminently losing health insurance. A second example involves a rider who switched work locations to a distant suburban area for health reasons, temporarily incurring costs greater than \$100 per trip before eventually relocating near the area of employment. These examples illustrate the associated effects of employment transportation programs on these other social needs.

Thus far, survey results indicate that lower incomes correlate with reduced car ownership rates. Extended program observation through follow-up rider surveys and interviews will provide insight into whether increases in income through stable employment would incentivize individuals to seek access to private vehicles. Furthermore, it will elucidate whether CTC-provided transportation to work has improved riders' socioeconomic status, job retention, self-reported health status, and ability to access healthcare services.

4.8.3 Adoption

Part of the goal of the demonstration project was to devise a financially sustainable model that transcends grant funding. The very characteristics necessitating a focus on this population--transportation barriers and low unemployment rates--also make it difficult for private businesses to accommodate. This is why the program was designed to harness employer partners to share ride costs.

One business has joined the program and another large-scale, regional employer is nearing implementation. Other employers have expressed interest in the program but the desired breadth of adoption has not yet been realized. Staffing agencies, a steady source of riders, have been eager to use the program for their clients but have been reluctant to participate as financial partners.

Reasons for the limited program adoption to this point vary. Early program strategy did not focus exclusively on recruiting employer partners and we have since found that it is critical to allot sufficient time to navigate internal decision making. For example, the large employer that is still structuring their use of CTC has taken nearly five months to initiate the pilot. Similarly, the time required of Union Cab to create information packets for prospective partners has lengthened the recruiting process.

We felt that success in achieving effective adoption among business institutions would depend on finding good partners willing to collaborate on program design. We also hypothesized that potential employer partners would be co-located among other employers for increased ride-sharing potential, likely in outlying areas with little transit service. We revised our original hypothesis after learning from the region's expert in transportation demand management that employers in the central business district face high parking costs and have incentive to search for

employee transportation solutions. In addition, the greater density of these trip locations may end up being less costly to Union Cab than those made to outlying areas.

The nature of the program is such that Union Cab's CTC managers work closely with employer partners to customize their rides. The lessons learned from the structuring of these partnerships will inform future program design as more employers decide to participate. In addition, being able to provide prospective employers with sample cost structures from existing implementations should prove beneficial in recruiting efforts.

4.8.4 Implementation

Evaluating program implementation is still in its infancy. The lone employer participating as a partner determined internally that the program's cost structure was preferable to how they had previously been accommodating their transportation-challenged employees. We have yet to see them request any changes to the way their program is structured. The large employer that is approaching implementation has made similar internal determinations but intends to begin program usage with a limited rider group in order to further evaluate its efficacy.

Evaluating Union Cab's implementation has provided insight into the effectiveness of the program operating in two different modalities: with and without employer partnerships. Assuming the responsibility of managing and coordinating rides instead of devolving problem resolution to the level of employers or individual riders has resulted in high administrative costs. A sustainable program must be profitable for the initiating organization. Involving employers in program implementation not only puts financial onus on these businesses, but also delegates to them rider identification and acquisition. A program functioning in this way is more efficient and allows the taxicab company to operate as close to business-as-usual as possible rather than performing extraneous tasks.

Union Cab has engaged in program troubleshooting across three major areas: riders who do not show up for rides (no-loads), riders who try to use the service for purposes that are not allowed, and riders who mistreat phone operators, schedulers, and drivers. The internal solution has been to develop and communicate clear program policies during rider intake and when initiating partnerships with employers. Developing these policies required internal discussion and agreement. The co-op structure of the organization and its culture of inclusive decision-making are unique characteristics determining how these administrative tasks were handled.

4.8.5 Maintenance

A key element affecting program maintenance is the historically low unemployment rate in the Madison area at the time of implementation. Regional employers, though actively hiring, still experience difficulty because the available workers have the highest mobility and social barriers. This idea of rider and job-related instability has been a consistent theme across our multiple data sources.

One perspective asserts that jobs alone are not a solution to poverty if they are low quality jobs characterized by poverty wages, volatile hours, and few benefits (or none). This policy approach does not address the substantial structural barriers to obtaining or maintaining steady employment (Dresser et al., 2017). Understanding the associated difficulties may be crucial to understanding why maintenance of these kinds of programs is so challenging.

Through our interactions with prospective employer partners, we have observed that employers are generally not inclined to pay for their employees' transportation if it can be provided for free through public programs and often leave their workers to solve issues independently. With wages remaining stable despite low unemployment, we see a labor practice of making workers as close to contractors as possible.

We find that the Union Cab CTC program attracts employers who are either: 1) interested in their bottom line and desire to control expenditures resulting from low employee retention, or 2) invested in their employees if doing so makes sense financially. It appears that employers who pursue concrete partnerships are those that have already demonstrated commitment to their employees through transportation benefits.

Financial viability is another crucial component to maintaining the program. Union Cab has been able to re-deploy vehicles that they had removed from service during off-peak hours due to the prominence of TNCs like Uber and Lyft. While regaining that business would be welcome for Union Cab, the company also sees the program as potentially profitable. If employers contribute the bulk of the ride cost, then it becomes another account-based service with guaranteed revenue for both the cab company and the employer.

Institutionalizing CTC within Union Cab and employer partners will require more time. Union Cab has made steps toward integrating the program with day-to-day operations by attempting to create formal program policies and procedure documents and making ride management as standardized as possible. In the interest of further developing a sustainable program, the project team had identified the need to either hire or promote a designated CTC manager to handle coordination issues.

We may be seeing that riders reached through employer partnerships have more stable jobs and less severe transportation barriers compared to riders acquired individually outside of employer assistance. If this is true, then a program model with a stable business component could cross subsidize service for workers with the most unstable employment and little potential to be sponsored by their employers. However, serving this specific, highly unstable subpopulation fulfills the fundamental mission of this intervention - to eliminate transportation barriers to employment for all transportation disadvantaged current and prospective workers using public funds and in a manner that progressively relies less on those public funds over time. We would require more program run-time with employer partners participating in order to determine what proportion of the ridership being employer-sponsored is sustainable in the long run and will best help the program achieve both its sustainability and public interest goals.

4.8.6 Limitations

Data collection in its entirety is an ongoing process, and this paper captures only the first six months of implementation. As Union Cab’s demonstration project continues and more data points and participant observation is conducted we will be able to more comprehensively report on what characteristics constitute a sustainable program model.

The collection of survey data to date presents us with a few key limitations. First, we require more survey responses together with a growing ridership to determine program impacts on job stability, access to employment, housing stability, and the corresponding health impacts to which these social determinants of health contribute. Without a larger sample size, there is insufficient statistical power to run meaningful regression analysis on the data.

Also, in the initial release of the survey, respondents had trouble with a slider tool used to indicate the number of vehicles owned in their household; thus, the initial eight survey responses lack a response to this question. Furthermore, we provided the option “I prefer not to respond” for most questions posed. Given the small base of unique riders and correspondingly smaller sample size, this led certain questions to result in one-fifth to one-quarter of respondents selecting this option, limiting our ability to more fully analyze variables, namely race and health insurance type.

4.9 Conclusions

This evaluation has employed multiple methods in a case study approach to present a comprehensive picture of the implementation challenges and opportunities that employment transportation programs face. This case, in particular, illustrates the complexity of adapting existing transportation infrastructure and services to serve this market with financial sustainability and independence.

Funding for such transportation projects has been in place since at least the 1990s, yet there remains a dearth of material evaluating their implementation at the organizational level. Our results begin to paint a picture of both why transportation programs that aim to alleviate employment issues are difficult to implement and why they are necessary. Further research and program evaluation may help indicate what characteristics are required for such a transportation program to become sustainable.

The rider surveys, as well as implementation experience, show that the Commute to Careers program provides essential transportation for workers who would not otherwise have reliable transportation to work, but the process generates more administrative costs than Union Cab’s typical business accounts. Personal health, housing, and health care have been recurring themes that prompted allowance of flexible rides, which contributes to the administrative cost.

Union Cab does not have dedicated support to manage the CTC program. Most of Union Cab’s employees interact with the program within the context of their normal responsibilities.

Having a designated program manager would provide needed capacity to develop, communicate, and implement policies that reduce administrative costs such as those described above. The expectation is that policies, as well as a reliable set of standard operating procedures, could reduce administrative costs.

Recruiting employer partners who make concrete contributions to develop the program and that realize their own benefits from the program has been challenging, but feasible. Employer partners who have come on board already have worker-focused values. The riders reached through employer partners, however, may have different characteristics than those recruited through staffing agencies and employment training programs if their jobs are more stable. We see potential to serve both types of riders in a financially sustainable program model.

Chapter V: Program Startup Guide

5.1 Introduction

In October of 2018, Union Cab Taxi Co-op received grant funding from the Wisconsin Department of Workforce Development Commute to Careers program to implement an affordable, on-demand employment transportation service. Partners from the University of Wisconsin–Madison participated in and observed various elements of the service development and delivery. We developed this startup guide to provide a practical resource for implementing similar employment transportation programs. Based upon the program evaluation and lessons learned, this guide is intended to serve as a reference for various entities considering participation in employment transportation and as a document informing further research on the challenges involved in providing human service transportation.

5.2 Determining Program Design

Transportation is highly contextual; no two regions share identical constraints and characteristics. Designing an effective employment transportation program necessitates a careful evaluation of local transportation characteristics and travel patterns, employment statistics, and population demographics. Understanding travel dynamics, who the target population is, what potential partners and providers need, what funding sources exist, and how evaluation will be conducted are key to program success.

5.3 Evaluating External Factors

5.3.1 Existing Transportation Environment

Union Cab’s employment transportation program in Dane County, WI occurred in an environment in which both population and job growth were projected to increase rapidly and job opportunities were expected to eventually exceed the local population of workers. Through interviews and meetings with state agencies, representatives from local municipalities, and area employers we learned that companies in the outlying regions of the Madison metropolitan area experience difficulty accessing workers due to transportation constraints. The Madison public transit system provides little to no service to outlying areas and when it does offer service, it may only cover the one-way trip for third shift workers. This information helped design the program to reach workers who do not have access to public transit or whose jobs are not served by public transit.

Entities considering instituting employment transportation programs should perform similar background analysis because it contributes to determining program structure. Often, county level resources and data are publicly accessible. Resources for analysis can include:

- Employment density maps
- Commute pattern maps
- Public transit service maps, schedules, and plans
- Regional and municipal planning documents
- Transportation agency regional plans and projections
- Interviewing local business consortiums, chambers of commerce, and regional employers

5.3.2 Identifying the Target Population

Union Cab’s project proposal to receive grant funding was geared toward a ridership that was largely low-income individuals in the Madison metropolitan area who lack a vehicle, are not within walking distance of a bus line, who work shifts outside of scheduled public transit hours, or who otherwise face transportation obstacles in traveling for work-related purposes (i.e., to jobs or job interviews). Building upon the transportation environment analysis, Union Cab’s team determined that 46,000 county residents age 15 and older do not drive and over 16,000 households do not have a car. They found that a 2017 Wisconsin sample of the National Household Travel Survey showed that only 19% of non-drivers were employed, compared to 59% of drivers. Additionally, women and individuals with lower incomes were overrepresented among non-drivers. Team meetings with workforce development specialists showed that low unemployment in the region meant that the remaining labor pool participants without jobs were the individuals who faced some of the most severe obstacles to employment transportation. It also meant that employers who had a high demand for more employees either had to find a way to access this population or outsource their work to commuters from outside the county.

Determining exactly who the employment transportation program will serve is important in designing its structure. Knowledge about the target population can inform program policies that aim to address population barriers. For example, a lower-income population may face barriers regarding methods of payment. With this understanding, program design could be tailored in such a way as to include ride service providers who accept cash payments. Resources for entities in identifying a potential ridership include:

- Workforce development agency reports
- Regional and municipal planning documents
- Census data
- Interviews with regional temporary/staffing employment agencies
- Interviews with workforce development agency representatives

5.3.3 Identifying Potential Partners

One of the goals of Union Cab’s proposal was to develop a program that would be financially viable beyond the extent of the grant funding period. The team hypothesized that employers, municipalities, and workers each benefit from the commute and share its value.

Where shared value exists, stakeholders have incentive to cooperate in planning and sharing costs. To that end, the project model was designed to build collaborative partnerships between the ride service provider (Union Cab), municipalities, and employers. In this way, transportation costs to all parties could be reduced through burden sharing and ride coordination. The general concept was such that riders would pay a \$5.00 copay per ride and their employers would fund the remaining ride cost. Coordination between employers, municipalities, and the ride service providers would create efficiencies by identifying riders and examining schedules so that rides could take place with multiple passengers riding simultaneously. In addition, pickup and drop-off times could potentially be coordinated to coincide with shift changes so that vehicles could serve riders at trip origins and destinations.

Having an employer partner take on the responsibility to coordinate rider identification and recruitment reduces the administrative burden on the ride service provider. A sustainable program must be profitable for the initiating organization. This sharing of responsibilities is more efficient and allows the taxicab company to operate as close to business-as-usual as possible rather than performing extraneous or non-traditional tasks.

With this model in mind, Union Cab's team sought to identify employer partners who fit ideal characteristics: are located in areas underserved by transit, are located near other employers, have shift-based schedules, invest in employees with transportation and other benefits, and are willing to share data and collaborate to further develop the project model.

Determining what may constitute an ideal program partner and subsequently enlisting their participation will be an active and ongoing process. Resources to assist in this process are less readily available than the maps, plans, and other documents listed in previous sections. Potential starting points include:

- Interviews with workforce development agency representatives
- Interviews with chambers of commerce representatives
- Interviews with local business consortiums or associations
- Regional employer data (sizes of businesses)
- Google search and Google maps for locations
- Company websites often give information on shift hours

5.3.4 Identifying Ride Service Providers

In our study, Union Cab was the program initiator, had existing ride service capacity, and was not tasked with finding another ride service provider to carry out the program. The company does, however, exhibit desirable characteristics of which entities wishing to implement such a program should take note. Union Cab operates the largest taxi fleet in Madison and employs expert drivers who pass background checks and receive formal training in disability, sensitivity, and defensive driving. Their vehicles are ADA accessible and they can accommodate cash

payments for those who are unbanked. Because they operate 24 hours a day, seven days a week, they have readily available vehicles for third shift and off-peak hour workers as well.

Depending on the type of program being designed, ideal characteristics of ride service providers can include:

- Flexible and broad hours of operation
- ADA compliance and training
- Flexible payment collection methods
- Larger passenger capacity vehicles to accommodate shared rides
- Willingness to coordinate with partners to develop financial model
- Willingness to share information and data

5.3.5 Determining Funding Sources and Financial Models

Human service transportation programs can be costly to operate. Union Cab was proactive in securing grant funding provided through the Wisconsin Department of Workforce Development Commute to Careers program. One of the goals of the new service was to develop a financial model that would be viable without grant funding, but the opportunity to accomplish that would not have been possible without funds for the initial two-year period.

In the absence of an immediately viable financial model for the program, grant and other sources of funding should be actively sought. Some resources for finding these funds include state and federal agencies.

5.3.6 Determining Metrics for Success

Defining success depends upon the stated goals and desired outcomes of the program and is contextual to the local environment. Union Cab identified a successful model as one that forms lasting partnerships with employers and community organizations that outlive grant-funded support, provides reliable, affordable, and convenient service to passengers and employers who receive measurable economic benefit from participation, and creates an innovative program to add to Union Cab's daily business and operations to help make them more competitive in an evolving transportation market. Evaluation of the impacts of human service programs, particularly those based in transportation, is notoriously difficult (Shaheen et al., 2018). Union Cab's evaluation relied on participant surveys and interviews and extensive ride data collection. The group will reference county workforce participation rates, shared employer data, and self-reported impact assessments to attempt to gauge the social benefit of the program. Internal business data will inform of the program's impact on Union Cab's operations.

When determining what metrics to use for evaluating an employment transportation program, first contextually define what the concept of success means. Creative thinking and brainstorming can then help in operationalizing a statistical means of measurement.

5.3.7 Evaluating Internal Organizational Capacity

In deciding to undertake ride service within the grant funded program, Union Cab felt they had the administrative capacity to handle the extra rides. They did not anticipate, however, the unique costs associated with managing a program of this kind. Prior to undertaking such a program, any entity—municipality, ride service provider, employer—should perform an internal analysis to ensure that there is administrative capacity. If capacity does not currently exist, further analysis should be performed to determine whether it is financially prudent to procure additional administrative resources.

5.4 Setting Up Implementation

5.4.1 Administrative Office or Officer

As the initiating entity for the employment transportation program, Union Cab was entirely responsible for administration and management. These duties were performed by individuals within the company in addition to their normal operations responsibilities. Human service programs that cater to less economically stable populations have a high administrative burden. It became apparent mid-way through the life of the program that having a designated, separate individual or entity for program management would allow the ride service provider—in this case Union Cab—to function as close to normally as possible, facilitating a more efficient and cost-effective service.

An office, or officer, in this capacity would be responsible for program oversight that could include:

- Creating and standardizing program operations procedures
- Conducting new rider intake and account setup
- Budget management
- Reporting
- Partner Outreach

Addressing administrative requirements from the outset is key in creating a foundation for program success. Ideally, the initiating entity would develop internal capacity to accommodate these functions and serve as the point of coordination for all involved stakeholders. This may require creating an additional department and would likely necessitate additional funding. Having a sound coordinating body, however costly, may prove pivotal in reducing long-term program costs.

5.4.2 Operational Procedures

Internal Setup

Union Cab had the challenge of integrating the new program operations into an existing ride-hail system. Program managers determined to handle rides in a similar fashion as they do standing account rides.

Rider Intake

Early in the program, riders were acquired when they called Union Cab and requested service. A point person received these calls, screened riders for eligibility, and created accounts in their names for service rides. When the program began to shift to employer-based rider acquisition, the intake process differed slightly. Partnering employers create an account by contacting Union Cab's point person and submit a list of riders from amongst their employees. Union Cab then provides the employers with cost estimates for the rides and, once agreed upon, creates individual rider accounts.

The rider intake process is highly individual to the ride service providers enlisted for the program. Particularly in instances where multiple providers integrate their services, care should be taken in determining each providers' capacity and outlining standard intake procedure.

Driver, Dispatch and Trip Scheduling Operations

Union Cab's ride-hail service relies upon an office of in-house phone-answerers (PAs) who field calls for ride requests. These PAs enter approved rides into their MTI scheduling software system where ride dispatchers can view them and further coordinate vehicle scheduling. Ride requests made under the program's accounts were treated in much the same way, but were noted under a specific cost-accounting program number.

Similar to the rider intake process, trip operations may be unique to each ride service provider. One way to facilitate the integration of multiple providers in a program may be to seek providers who already use identical scheduling software.

Accounting, Reporting and Billing

Because Union Cab's program was grant funded, the company had specific accounting and reporting requirements. At the end of each fiscal quarter, reimbursement requests for ride costs, along with narrative reports, were submitted to the Wisconsin Department of Workforce Development (DWD) grant managers. Billing with employer partners was such that program costs were allocated to each partner based on their share of employees' total monthly trip cost. Invoices are sent at the end of each month. These tasks were carried out by two individuals within Union Cab alongside their normal operations duties.

Accounting and reporting will vary depending on program funding sources and the cost allocation model. It is recommended that these tasks be incorporated into the role of the administrative office, or officer, should one be created.

5.4.3 Outreach Setup

Partner Outreach

Union Cab transitioned to focusing on employer partners after some months of program operation. Ideally, planning for onboarding these partners would take place in the setup process. In an effort to reach out to prospective employers, representatives from Union Cab attended job fairs, business conferences, and consortium meetings, conducting presentations at several of these. In addition to program spread by word of mouth, direct email contact was initiated to certain highly desirable partners.

Marketing

Several months into the program, a representative from DWD reached out to Union Cab to discern what marketing assistance was needed. To that point, and throughout the remainder of the program, Union Cab had not had the capacity to conduct a marketing campaign. Knowledge of the program had spread extensively via word of mouth among prospective riders. Once the program transitioned to focus on employers, the project team began to create program flyers to be used specifically to attract employer partners.

While this program was successful in its reach without a designated marketing campaign, it is recommended that at least some level of marketing/advertising be done. The word of mouth spread also included rumors about program structure that were untrue. A comprehensive marketing campaign, in addition to attracting riders and partner, would serve as a platform to publicly explain program structure.

Program Policies

Union Cab created two separate policy/informational documents for the program. One policy document was geared toward riders and explained program eligibility, ride setup procedure, payment requirements, and acceptable conduct. The second policy document was geared toward employer partners and outlined account creation procedure, payment requirements, and general program design.

Policies and documents that an initiating entity may wish to produce include:

- Rider policy and conduct
- Partner policy and guidance
- Informational brochures

5.5 Troubleshooting

5.5.1 Demand Management

Due to high demand, Union Cab’s program experienced rapidly accelerating monthly costs. The initial grant funding was scheduled to sustain the ride service over a two-year period, but funds were being used much faster than anticipated. Budgeting reports submitted to DWD prompted the agency to coordinate with Union Cab to scale back program participation in order to stretch the grant funding through the entirety of the desired program length. Troubleshooting budget related issues is facilitated by having a designated administrative office or officer monitoring demand and usage and making adjustments in scale as necessary.

5.5.2 No-Loads

The frequency of no-load trips—trips where there is no passenger at the pick-up location—led to Union Cab formalizing rider policies to include clear consequences of repeated occurrences. Due, again, to the limited staff and organizational capacity to devote solely to program monitoring, these no-load trips were not identified until a substantial number had accumulated. Each no-load incurred a \$4.00 driver-tip fee against the grant funds and led to rising costs. Ultimately, when scale-back occurred, riders with excessive no-loads were the first to have their rides suspended. Dealing with no-loads requires consistent program monitoring and is, again, facilitated by having a designated administrative office or officer.

5.5.3 Non-Compliant Riders or Partners

Rider behavior observed in the early days of Union Cab’s program led to the creation of rider conduct policies. A formal document with descriptions of tolerances and consequences for unacceptable behavior helped clarify how abuse was to be approached. Documents of this kind may be helpful for drivers in that they have official recourse when issues occur.

Program partners who are non-compliant should be addressed professionally by the program administrator. Contracts should be in place that clearly identify what is and is not required of the partnering and initiating agencies along with clear descriptions of what actions will be taken in the event of non-compliance. Tolerance levels for unacceptable partner behavior should be set in advance and periodically monitored.

References

Alfred, M.V., L.G. Martin. The development of economic self-sufficiency among former welfare recipients: lessons learned from Wisconsin's welfare to work program. *International Journal of Training and Development*, 2007. 11(1): 2-20. <https://doi.org/10.1111/j.1468-2419.2007.00266.x>

Blumenberg, E., A. Brown, A. Schouten. Car-deficit households: determinants and implications for household travel in the US. *Transportation*, 2018. 1-23. <https://doi.org/10.1007/s11116-018-9956-6>

Blumenberg, E., M. Manville. Beyond the spatial mismatch: Welfare recipients and transportation policy. *Journal of Planning Literature*, 2004. 19(2):182-205. <https://doi.org/10.1177/0885412204269103>

Blumenberg, E., G. Pierce. The drive to work: The relationship between transportation access, housing assistance, and employment among participants in the welfare to work voucher program. *Journal of Planning Education and Research*, 2017. 37(1): 66-82. <https://doi.org/10.1177/0739456X16633501>

Brown, A. Redefining Car Access: Ride-Hail Travel and Use in Los Angeles. *Journal of the American Planning Association*, 2019. 85(2): 83-95. <https://doi.org/10.1080/01944363.2019.1603761>

Chen, Y.V. Wisconsin Employment Transportation Assistance Program (WETAP). <https://wdr.doleta.gov/conference/pdf/wetap.pdf>

Dresser L., J. Rodriguez, M. Meder. When Work Is Not Enough: Toward Better Policy to Support Wisconsin's Working Families. 2017.

Curtis, T., M. Merritt, C. Chen, D. Perlmutter, D. Berez, B. Ellis. Partnerships Between Transit Agencies and Transportation Network Companies (TNCs). TRCP Research Report 204. National Academies of Sciences, Engineering, and Medicine. 2019. <http://www.trb.org/Main/Blurbs/179005.aspx>

Ehrle, J., K. Seefeldt, K. Snyder, P. McMahon. Recent Changes in Wisconsin Welfare and Work, Child Care, and Child Welfare Systems. The Urban Institute State Update. 2001. 8: 1-24.

Federal Highway Administration. 2017 National Household Travel Survey, U.S. Department of Transportation, Washington, DC. 2017. Available online: <https://nhts.ornl.gov>.

Feigon, S., C. Murphy, T. McAdam. Private Transit: Existing services and emerging directions. TRCP Research Report 196. National Academies of Sciences, Engineering, and Medicine. 2018. <http://www.trb.org/Main/Blurbs/177189.aspx>

General Accounting Office. Transportation-Disadvantaged Populations: Many Federal Programs Fund Transportation Services, but Obstacles to Coordination Persist. GAO-03-698T. 2003.

General Accounting Office. Transportation-Disadvantaged Populations: Federal Coordination Efforts Could Be Further Strengthened. GAO-12-647. 2012.

Glasgow, R.E., S.M., Harden, B. Gaglio, B.A. Rabin, M.L. Smith, G.C. Porter, M.G. Ory, P.A. Estabrooks. RE-AIM Planning and Evaluation Framework: Adapting to New Science and Practice with a Twenty-Year Review. *Frontiers in public health*, 2019. 7: 1-9.

King, D.A., J.F Saldarriaga. Access to taxicabs for unbanked households: An exploratory analysis in New York City. *Journal of Public Transportation*, 2017. 20(1): 1-19.
<https://doi.org/10.5038/2375-0901.20.1.1>

King, D.A., M.J. Smart, M. Manville. The poverty of the carless: Toward universal auto access. *Journal of Planning Education and Research*, 2019. 1.
<https://doi.org/10.1177/0739456X18823252>

Locatelli, S.M., L.K. Sharp, S.T. Syed, S. Bhansari, B.S. Gerber. Measuring health-related transportation barriers in urban settings. *Journal of applied measurement*. 2017. 18(2): 1-21.
Matsuo, M. Carpooling and drivers without household vehicles: gender disparity in automobility among Hispanics and non-Hispanics in the US. *Transportation*, 2019. 1-33.
<https://doi.org/10.1007/s11116-019-09974-w>

Ong, P., E. Blumenberg. Job access, commute and travel burden among welfare recipients. *Urban Studies*, 1998. 35(1):77-93. <https://doi.org/10.1080/0042098985087>

Pendall, R., E. Blumenberg, C. Dawkins. What if cities combined car-based solutions with transit to improve access to opportunity? *The Urban Institute*. 2016.
Personal Responsibility and Work Opportunity Reconciliation Act of 1996. 42 USC 1305. Public Law 104-193. <https://www.congress.gov/104/plaws/publ193/PLAW-104publ193.pdf>

Ralph, K.M. Childhood Car Access: Long-term Consequences for Education, Employment, and Earnings. *Journal of Planning Education and Research*. 2018. 1-11.
<https://doi.org/10.1177/0739456X18798451>

Raphael, S., M.A. Stoll. Can boosting minority car-ownership rates narrow inter-racial employment gaps? *Brookings-Wharton Papers on Urban Affairs*. 2001. 1: 99-145.
<https://doi.org/10.1353/urb.2001.0013>

Smart, M.J., N.J. Klein. Disentangling the role of cars and transit in employment and labor earnings. *Transportation*, 2018: 1-35. <https://doi.org/10.1007/s11116-018-9959-3>

Syed, S.T., B.S. Gerber, L.K. Sharp. Traveling towards disease: transportation barriers to health care access. *Journal of community health*. 2013. 38(5): 976-93. <https://doi.org/10.1007/s10900-013-9681-1>

Thakuriah, P., J. Persky, S. Soot, P.S. Sriraj. Costs and benefits of employment transportation for low-wage workers: An assessment of job access public transportation services. *Evaluation and program planning*, 2013. 37:31-42. <https://doi.org/10.1016/j.evalprogplan.2012.11.004>

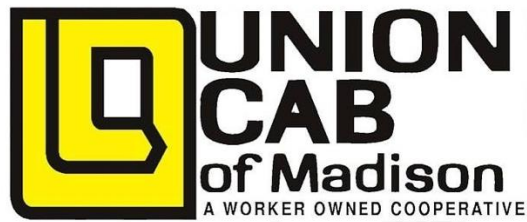
Transportation Equity Act for the 21st Century. Sec. 3037 Job Access and Reverse Commute Grants. 49 USC 5309. 1998.

Union Cab of Madison Cooperative. History. <https://www.unioncab.com/History>. Accessed August 1, 2019.

U.S. Census Bureau. American Community Survey, Table S0801, 5-year estimates. 2017.
Wisconsin Department of Workforce Development. Expanded Wisconsin Fast Forward and WisDOT Grant Program Announcement: Commute to Careers, Flexible Transportation Solutions for Wisconsin Workers. 2018.

Yang, S., R.L. Zarr, T.A. Kass-Hout, A. Kouros, N.R. Kelly. Transportation barriers to accessing health care for urban children. *Journal of Health Care for the Poor and Underserved*. 2006. 17(4): 928-43. 10.1353/hpu.2006.0137

Appendix A: Rider Policy



Commute to Careers Program

Rider Policy and Code of Conduct

Updated July 9, 2019

At Union Cab, our main goal is to help you get to work on time. In order to ensure a smooth experience when ordering your scheduled rides, remember these few tips:

- Only riders who have been authorized and included in the approved rider list can use the Commute to Careers program.
- Commute to Careers rides are for trips to and from work ONLY.
- On a case-by-case basis, the account can be used to take children to school or daycare, or adults to care, but ONLY IF the trip is made on the way to or from work.
- There is at least a \$5.00 charge per ride per person.
- You can pay the driver directly or to an account at Union Cab, as pre-arranged.

Setting Up Your Rides

Step 1. Call Union Cab

- Call Bill Carter at (608) 242-2018 and tell him you are interested in the Commute to Careers rides.
- If you reach our answering machines, please leave a clear, detailed message with the following information:
 - First and last name
 - Stated interest in Commute to Careers
 - A phone number where you can be reached
 - Best time to call you back

Step 2. Schedule Rides

Have the following key information ready to tell Bill. Please speak clearly.

- Full name.
- Contact information: phone number, e-mail.
- Work schedule including dates and times. Let Bill know if your work schedule changes often.
- Bill will help you set up rides based on your work schedule.
 - Once your rides have been scheduled, Union Cab will provide you with a **pick-up window**, or about a 20-minute timeframe of expected driver arrival time. Be prepared to board the vehicle during this timeframe, as the driver will only wait five minutes after arrival before leaving.
- Exact address of your pickup location. If you expect your pickup location to change, let us know.
- Exact address of your drop-off location. If you expect your drop-off location to change, let us know.
- Physical limitations, mobility devices used, and any assistance needed.
- Whether you travel with a child or adult in your care, personal care assistant, or licensed service animal.
- Once your rides are set up, there is no need to call every day. Simply make sure you are ready to go at your scheduled time and our drivers will pick you up.
- If you have any changes or need to cancel a ride, you need to call the office at (608) 242-2000 and talk to an operator at least 2 hours before your scheduled ride.

Step 3. Meet the Taxi

- Make sure you are ready to go at the scheduled time.
- Always note the cab number you are riding in.

Payment

There is a \$5.00 charge per person per ride. You do not pay the driver. Instead, you pay directly to an account at Union Cab and use an account number when you set up your rides.

Payments can be made in the following ways:

- Check made out to Union Cab, or cash, mailed to our offices at:
Union Cab
PO Box 8305
Madison, WI 53708-8305
- Check made out to Union cab, or cash, hand delivered to our main office at:
Union Cab Main Office
2458 Pennsylvania Ave

Madison, WI 53703

- Direct cash payment to the cab driver
- Call our office at (608) 242-2000 to pay with a card over the phone.

Changing Rides

- We understand that work and living circumstances change. If you need to make changes to your rides, contact us at least 2 hours before your scheduled ride.

Cancelling Rides

- Rides must be canceled at least 2 hours prior to the ride reservation pick-up time to avoid a no-show ride.
- Please provide the following information when canceling a ride:
 - Rider's name (please spell the last name)
 - Time and date of the canceled ride
 - One-way or round-trip cancel
 - Phone number of contact person if we have questions about the cancellation

No-Show (No-Load) Policy

Riders who fail to show up for a scheduled ride without prior cancelation are subject to a 2-strikes policy:

- 1st No-Show: You will be contacted and issued a warning
- 2nd No-Show: Your standing ride will be cancelled and you will be unable to schedule future rides under the Commute to Careers program.

Code of Conduct

Union Cab is licensed by the City of Madison and serves all riders. However, some activities that disrupt the safety, order, or rights of other passengers, drivers, or Union Cab employees will not be tolerated.

The following activities may result in riders being suspended from Union Cab either temporarily or permanently:

1. Leaving papers or trash in the cab.
2. Smoking inside the cab.

3. Eating in the cab or bringing in open food and beverage containers.
4. Sharing or letting any other person use your Commute to Careers account.
5. Taking non-work related or non-approved trips.
6. Harassing the drivers or other passengers in any way. This includes shouting or using vulgar language.
7. Harassing the phone operator in any way. This includes shouting or using vulgar language.
8. Carrying firearms or other weapons, narcotics, other illegal substances, and/or hazardous items such as flammables, uncovered glass and explosives into the cab.
9. Engaging in illegal conduct.
10. Bringing non-service animals into the cab. These animals require official permits and registration.

Appendix B: Rider Survey

UNIVERSITY OF WISCONSIN-MADISON Research Participant Information and Consent Form

Title of the Study: Evaluating a Taxi Ride Share Service for Commuters in Dane County, WI

Principal Investigator: Carolyn McAndrews (phone: (608) 265-3182; email: cmcandrews@wisc.edu)

DESCRIPTION OF THE RESEARCH

You are invited to participate in a research and evaluation study about Union Cab's Commute to Careers program. We are interested in how the program affects workers' employment, transportation, and health.

You have been asked to participate because you have either taken a taxi ride as part of the Union Cab Commute to Careers program or worked, trained, or sought a job in a setting served by the program. You do not need to be a Union Cab rider to participate. Your decision to participate does not affect your Union Cab services in any way.

This study will include adults who work, train, or seek employment in and around Dane County, Wisconsin.

The study involves asking people to complete a survey and answer questions about their work, everyday travel, and health.

WHAT WILL MY PARTICIPATION INVOLVE?

If you decide to participate in this evaluation and research study you will be asked to complete a survey and answer questions about your work, everyday travel, and sense of well-being.

You will be asked to complete 1 survey.

The survey will take 10-15 minutes to complete.

If you have taken rides with Union Cab, then your participation in the research and evaluation also means that you permit the study team to access information from Union Cab, including the number of rides you have taken, the time of day when you traveled, and where you traveled.

ARE THERE ANY RISKS TO ME?

There is a minimal risk of breach of confidentiality.

ARE THERE ANY BENEFITS TO ME?

We don't expect any direct benefits to you from participation in this study.

WILL I BE COMPENSATED FOR MY PARTICIPATION?

You will receive a \$10.00 gift card for participating in this study.

If you do not participate in the study, then there is no compensation.

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

While there will probably be publications and study data made available as a result of this study, your name will not be used. Only group characteristics will be published.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

You may ask any questions about the research at any time. If you have questions about the study, then you should contact the Principal Investigator Carolyn McAndrews at (608) 265-3182.

If you are not satisfied with response of research team, have more questions, or want to talk with someone about your rights as a research participant, you should contact the Education and Social/Behavioral Science IRB Office at (608) 263-2320.

Your participation is completely voluntary. If you decide not to participate or to withdraw from the study it will have no effect on any services you are currently receiving from Union Cab.

Your signature indicates that you have read this consent form, had an opportunity to ask any questions about your participation in this research and voluntarily consent to participate. Please keep this form for your records.

By indicating consent and signing my name below, I am consenting to participate in the research.

___ I consent

Signature: _____

I. Introduction

Thank you for being part of the evaluation of Union Cab's Commute to Careers program.

We will ask questions about your job and how you usually travel from place to place. We will also ask some general questions about your household and about your health and well-being.

Your participation is voluntary, and your answers will be completely confidential.

As a thank you, you will receive a \$10.00 gift card for participating in this study.

II. Your Work

1. During most of last week were you:

- Working
- Temporarily absent from a job or business, time off
- Looking for work / unemployed
- A homemaker
- Going to school
- Retired
- Something else (describe): _____
- I prefer not to answer

2. Last week, did you do any work for either pay or profit?

- Yes
- No → **Skip to Question #16**
- Temporarily absent from a job or business, time off
- I prefer not to answer

3. Do you have more than one job?

We mean more than one employer, not just multiple job sites.

- Yes
- No → **Skip to Question #5**
- I prefer not to answer

4. Altogether, how many jobs do you have?

- 2
- 3
- 4 or more

5. Do you usually work 35 hours or more per week in your primary job?

- Yes → **Skip to Question #8**
- No
- Hours vary
- I don't know
- I prefer not to answer

6. Do you want to work a full-time work week of 35 hours or more per week?

- Yes
- No
- Regular hours are full-time
- I prefer not to answer

7. Some people work part-time because they cannot find full-time work or because business is poor. Others work part time because of family obligations, school, or personal reasons.

What is your main reason for working part-time?

- Slack work / business conditions
- Could only find part-time work
- Seasonal, temporary, of intermittent work
- Child care problems
- Other family / personal obligations
- Health / medical limitations
- School / training
- Retired / social security limit on earnings
- Full-time work week is less than 35 hours
- Other (describe): _____
- I prefer not to answer

8. Thinking about your main job, do you normally start and end work around the same time each day?

- Normally work the same hours → **Skip to Question #10**
- Schedule varies, at my request → **Skip to Question #10**
- Schedule varies, by my employer's needs
- I prefer not to answer

9. Approximately how far in advance does your employer usually tell you the hours that you need to work on any given day?

- 1 day in advance or less (including on call)
- 2 to 3 days in advance
- 4 to 6 days in advance
- 1 to 2 weeks in advance
- 3 weeks in advance or longer
- I prefer not to answer

10. I am paid on the following scale:

- Salaried
- Hourly wage
- Some other type (describe): _____
- I don't know
- I prefer not to answer

11. What is the business name of your primary workplace?

If you do not know, write "I don't know."

12. What is the address or nearest cross streets of your primary workplace?

If you do not know, enter "I don't know."

13. How do you usually get to your primary job? If you use more than one type of transportation, please select all that apply.

- Walk
- Bicycle
- Car / SUV / Pickup / Motorcycle
- Taxi, including Uber / Lyft
- Union Cab Commute to Careers
- Carpool or other rideshare program
- Get a ride from a friend or relative
- Rental car, including car share
- Bus, including city-to-city bus
- Paratransit / Dial-a-ride / Specialized transportation
- Something else (describe): _____
- I prefer not to answer

14. If your main way of traveling to work was not available, which of the following options would you be able to use?

Please select all that apply.

- No alternative / stay at home
- Walk
- Bicycle
- Car / SUV / Pickup / Motorcycle
- Taxi, including Uber / Lyft
- Union Cab Commute to Careers
- Carpool or other rideshare program
- Get a ride from a friend or relative
- Rental car, including car share
- Bus, including city-to-city bus
- Paratransit / Dial-a-ride / Specialized transportation
- Something else (describe): _____
- I prefer not to answer

15. Do you have any of these benefits with your work?

Please select all that apply.

- No benefits with my work
- Retirement or pension plan
- Medical care / health insurance benefits
- Paid family / maternity / paternity leave
- Paid personal leave / paid time off
- Paid sick leave
- Paid vacation
- Paid holidays
- Employer assistance for child care
- Employer assistance for transportation
- Some other benefit (describe): _____
- I don't know
- I prefer not to answer

16. Are you currently covered by any of the following types of health insurance or health coverage plans?

Please select all that apply.

- Insurance through a current or former employer or union
- Insurance through a family member
- Insurance purchased directly from an insurance company (e.g., Marketplace)
- Medicare, for people 65 and older, or people with certain disabilities
- Medicaid, Medical Assistance, or any kind of government assistance plan for those with low incomes or disability
- TRICARE or other military health care
- VA, including those who have ever use or enrolled for VA health care
- Indian Health Service
- Any other type of coverage: _____
- I don't know
- I prefer not to answer

17. Compared to 12 months ago, would you say that you (and your family living with you) are better off, the same, or worse off financially?

- Much worse off
- Somewhat worse off
- About the same
- Somewhat better off
- Much better off
- I prefer not to answer

III. Your Transportation

1. Because this survey is about where and how far people travel, we need to record the physical address of where you live.

Please provide your address or the nearest cross streets:

2. Do you know how to drive a motor vehicle?

- Yes
- No
- Prefer not to answer

3. Is a vehicle available to you when you need to use it?

- Access to a vehicle all the time
- Mostly reliable access to a vehicle
- Access about half of the time
- Mostly unreliable access to a vehicle
- No access to a vehicle
- I prefer not to answer

4. How many vehicles are available for regular use by the people who currently live in your household?

Include motorcycles, mopeds, and RVs.

- 0
- 1
- 2 or more
- I prefer not to answer

5. I have taken rides through Union Cab's Commute to Careers (rides to work) program.

- Yes
- No → **Skip to Question #7**
- I don't know → **Skip to Question #7**
- I prefer not to answer

6. Have you ever used Union Cab's Commute to Careers (rides to work) program to access:

Please select all that apply.

- Work
- Job interview
- Job training
- Other job seeking activity
- My school
- Child's school
- Childcare
- Adult / Senior care
- Healthcare
- Food
- Something else (describe): _____
- I prefer not to answer

7. Does a medical condition affect your travel:

Please select all that apply.

- No medical condition affects my travel
- Limited to daytime driving
- Use bus / transit less frequently
- Ask others for rides
- Gave up driving
- Use specialized transportation services
- Use reduced-fare taxi
- Reduced day-to-day travel
- Other (describe): _____
- I prefer not to answer

IV. Your Health and Well-Being

1. In general, would you say that your health is:

- Excellent
- Very good
- Good
- Fair
- Poor
- I prefer not to answer

2. In the past year, would you say your health has improved, stayed the same, or worsened?

- Improved a lot
- Improved somewhat
- Stayed the same
- Worsened somewhat
- Worsened a lot
- I prefer not to answer

3. When you visit your doctor, how do you usually get there?

- Bus, including city-to-city bus → **Skip to Question #6**
- Drive – myself
- Drive – someone else drives me
- Taxi, including Uber / Lyft → **Skip to Question #6**
- Walk → **Skip to Question #7**
- Bicycle → **Skip to Question #7**
- Paratransit / Dial-a-ride / Specialized transportation → **Skip to Question #7**
- Other (specify): _____ → **Skip to Question #7**
- I prefer not to answer → **Skip to Question #7**

4. Does not having a ride ever prevent you from seeing your doctor?

- No
- Yes
- I prefer not to answer

5. Does the cost of gasoline for your car ever prevent you from seeing your doctor?

- No → **Skip to Question #7**
- Yes → **Skip to Question #7**
- I prefer not to answer → **Skip to Question #7**

6. Does the cost of public transportation/cab ever prevent you from seeing your doctor?

- No
- Yes
- I prefer not to answer

7. How much trouble is it for you to get transportation to your doctor?

- No trouble
- A little trouble
- Some trouble
- A lot of trouble
- I prefer not to answer

8. How long does it usually take you to get from where you live to your doctor?

- More than 120 minutes (more than 2 hours)
- Between 60 and 120 minutes (between 1 and 2 hours)
- Between 30 and 59 minutes
- Less than 30 minutes
- I prefer not to answer

9. Have you ever missed a doctor's appointment because of transportation problems?

- No
- Yes – what were the transportation problems? (Explain)

I prefer not to answer

10. Have you ever run out of medicines because you could not find a way to get to the pharmacy to pick up your refill of medicines?

- No → **Skip to Next Section: About You**
- Yes
- I prefer not to answer → **Skip to Next Section: About You**

11. You said you have run out of medicines because you could not find a way to get to the pharmacy to pick up your refill of medicines. How often does this happen?

- Rarely
- Sometimes
- Often
- All of the time
- I prefer not to answer

V. About You

1. How many people live in your household (all ages)? _____

Please do NOT include anyone who usually lives somewhere else or is just visiting.

2. What is your age? _____

3. How do you describe yourself?

Mark one answer.

- Male
- Female
- Trans male / Trans man
- Trans female / Trans woman
- Genderqueer / Gender nonconforming
- Prefer to self-describe: _____
- Gender not listed
- I prefer not to answer

4. Are you of Hispanic or Latino origin?

- Yes, Hispanic or Latino/a
- No, not Hispanic or Latino/a
- I prefer not to answer

5. Which of the following describes your race? Please select all that apply.

- White
- Black or African American
- Asian
- American Indian or Alaska Native
- Native Hawaiian or other Pacific Islander
- Some other race (describe): _____
- I prefer not to answer

6. What is the highest grade or degree that you have earned?

- Less than a high school graduate
- High school graduate or GED
- Some college of education beyond high school
- Associates or technical degree
- Bachelor's degree
- Graduate or professional degree
- I prefer not to answer

7. Are you deaf or do you have serious difficulty hearing?

- Yes
- No
- I prefer not to answer

8. Are you blind or do you have serious difficulty seeing even when wearing glasses?

- Yes
- No
- I prefer not to answer

9. Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?

- Yes
- No
- I prefer not to answer

10. Do you have serious difficulty walking or climbing stairs?

- Yes
- No
- I prefer not to answer

11. Do you have serious difficulty dressing or bathing?

- Yes
- No
- I prefer not to answer

12. Because of a physical, mental, or emotional condition do you have serious difficulty doing errands alone, such as visiting a doctor's office or shopping?

- Yes
- No
- I prefer not to answer

13. Have you ever served in active duty in the U.S. Armed Forces, Reserves, or National Guard?

- Never served in the military
- Only on active duty for training in the Reserves of National Guard
- Now on active duty
- On active duty in the past, but not now
- I prefer not to answer

14. What was your personal income in the past 12 months?

- \$0 - \$10,000
- \$10,001 - \$20,000
- \$20,001 - \$30,000
- \$30,001 - \$40,000
- \$40,001 or more
- I prefer not to answer

VI. Appreciation, Preferred Way to Receive \$10.00

1. I would like a \$10.00 e-gift card sent to my email address (provide email):

- From Amazon
- From Starbucks
- I want a physical gift card sent to my home address → **See Next Question**
- I do not want a gift card

2. I would like a \$10.00 physical gift card send to my home address (provide home address):

- From Amazon
- From Walmart
- From Starbucks
- From McDonald's
- From Walgreens

Thank you for participating in our survey!

