PULTE INSTITUTE
FOR GLOBAL DEVELOPMENT

Impact Evaluation:
City of South Bend Commuters Trust Program

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EXECUTIVE SUMMARY

In September 2019, the City of South Bend, IN launched Commuters Trust, a program that provides reliable and affordable travel options to employees to reach their workplaces. The Pulte Institute for Global Development, part of the University of Notre Dame's Keough School of Global Affairs, partnered with the City of South Bend to conduct an impact evaluation of the program with two goals in mind:

1. To determine the feasibility of the employer-funded program by measuring impact on key outcomes of interest to employer partners.
2. To assess the overall impact on participants and the broader community by measuring relevant outcomes such as changes in income, perceived stress, job performance, and employment access/retention.

The findings from the impact evaluation are contained in this report. We studied the program impacts at four local employers during the period of March 2020 – July 2021. We studied the enrollment and usage of the program and the program's impact on stress related to transportation, work hours, absences, and punctuality. A summary of findings is as follows:

Enrollment: Enrollments are low as a proportion of total eligible employees (11%). Women and full-time employees are more likely to enroll in the program. Low-wage workers are more likely to enroll in the program at two of the three employers for whom we have this information. The enrolled employees are also more likely to be moderately or severely transportation insecure, which suggests that the program is being used by those who need it. This is likely due to the self-selecting nature of the program.

Usage: A large proportion of those enrolled do not use the program (71%). This is likely due to COVID-19 restrictions and program use as a backup option. Among employees who had access to both options, Lyft/Uber was used more as compared to the bus pass. Employees at two employers, who are mostly low-wage workers, predominantly used the bus. With greater driver availability, Lyft/Uber usage would have likely been even higher.

Qualitative analysis: The program helps employees to reduce stress related to transportation and they appreciate their employers offering the program. The program is being used as a backup as well as primary mode and, for many program users, the program subsidizes their regular mode of travel. This is also why there was no effect on self-reported commute time. The analysis also reveals that around a third of the interviewed employees do not have reliable transportation. The program has helped many employees get to and keep their jobs, highlighting the need for such a program.

Quantitative analysis: There is no consistent evidence that the program led to a change in work hours, absences or punctuality. This is likely due to the low ride usage by enrollees, no change in their primary mode of transport for some of them, and averaging the effect across all enrollees.

Recommendations: We recommended to continue the program as there is a clear need among the target population. With a limited number of Lyft/Uber rides and bus passes, it can be possible to position the program as a transportation-as-a-benefit model. The City can consider subsidizing the program cost, especially at the low-wage employers where even a low-cost option of a bus pass is highly valuable. We also recommend measuring the program impact on outcomes such as reduced stress and ability to keep a job by potentially using surveys in future evaluations.

The outcomes of this evaluation should help the City to build further commitment for the program and solicit ongoing investment to promote the program's financial sustainability. Other cities and entities will benefit from understanding the outcomes of South Bend's program, should they choose to pursue similar initiatives in the future.

INTRODUCTION

Lack of reliable transportation is a primary barrier to employment for 1 of 3 of low-income workers in South Bend (enFocus, 2016). The City of South Bend has been working to reduce this barrier for its residents by providing reliable transportation options to employees to get to work. In 2018, the City was awarded a three-year, $1 million grant from Bloomberg Philanthropies to develop a program to address this issue. The City decided to explore a model that, instead of substituting the regular mode of transportation, helps when the regular mode becomes unavailable - an "insurance" for situations when your regular mode of transportation breaks down (e.g. when a shared household car is unavailable at the required time, or to reach workplace outside of bus operating hours[1]). The program was not intended or designed to solve chronic transportation problems.

The City launched a pilot in 2019 with three local employers where Lyft and bus passes were given to select employees. In March 2020, the City launched Phase II of the program, adding two new employers and a carpool offering[2]. The cost of the program was to be mainly funded by the grant and a small portion of it by employers. The City started Phase III of the program in January 2021. In phase III, some employers elected to change the structure of the benefits. Some employers offered discounted rides monthly (e.g. 10 rides per month) and others annually (e.g. 50 rides per year). Some employers also implemented time restrictions typically corresponding to bus availability, i.e. provided additional rides during hours when the bus does not run.

While there are cases of an employer providing public transport passes to employees, the Lyft/Uber rides subsidy is a novelty; as is the objective to solve short periods of transportation problems through a transportation-as-a-benefit model. A distinguishing characteristic of the program is that this is trying to solve a problem using existing transportation options in the market (rather than new public investment). The idea is that having access to subsidized rides will help employees to reduce absences and punctuality problems due to transportation issues and increase work hours and hence income by accepting shifts that were not possible earlier. Additionally, there were expected to be other benefits such as reduced stress and time spent commuting.

Scope of the report: In this report, we study the program impacts in the period March 2020 – July 2021, focusing on four employers located in South Bend, Indiana. This timeframe corresponds to Phases II and III of the program.

Report structure: We first explain the program design and the characteristics of the employers who participated in the program. To preserve employer privacy, we use pseudonyms instead of actual employer names. We then study the program enrollment by comparing the differences between enrolled and non-enrolled employees. The main question that drives the analysis is: Who enrolls in the program? We do a similar exercise in the next section, where in addition to answering "Who uses the program?" we also study the usage of the program options (rideshare and bus pass). Next, we discuss the findings from the qualitative analysis based on the personal interviews and the findings from the quantitative analysis on the effect of the program on work hours, absences and punctuality. We conclude the report by giving recommendations about how the program may be continued in the future.

[1] In South Bend, the buses do not operate on Sundays, and operate only from 7am-6pm on Saturdays and 5am - 10pm on weekdays.
[2] Two employers opted out of Phase II.

PROGRAM DESIGN AND PARTICIPATING EMPLOYERS

PROGRAM DESIGN

In Phase II (March 2020 - December 2020), the program consisted of giving the following to all enrollees each month:

1. 10 discounted Lyft rides (two rides for $1 and the subsequent eight rides for $5) that could be used anytime to get to or from work,
2. A digital bus pass that could be used for unlimited bus rides, and
3. Access to a carpooling service, Hytch, that pays employees to carpool to work.

The only *new mode* of transport introduced by the program was the carpooling service, Hytch. For the Lyft and bus rides, the program only reduced the cost.

In Phase III (January 2021 – July 2021), the program offered:

1. Discounted Lyft/Uber rides in varied quantities (e.g. 50 rides per year, or 10 rides per month) and varied co-pays ($4 or $5 per ride)
2. A digital bus pass which could be used for unlimited free bus rides

Thus, between Phase II and III, the carpool option was eliminated due to no usage in Phase II. Uber was added as a rideshare provider to give the program participants freedom in terms of which provider they preferred.
The program enrollment was voluntary. The employers would publicize the program at their workplaces. Any interested employee could then start the process of enrolling in the program either by sending a text message to a toll- free number, by scanning a QR code, or visiting a webpage to access a self-service enrollment form where they could sign themselves up without needing to go through a manager[3]. There were no limits on the number of enrollees that could enroll.

PARTICIPATING EMPLOYERS

Employer A: Employer A provides mental health and addiction treatment for children, adolescents and adults in Elkhart and St. Joseph counties. Their specialized services range from skills training and case management to outpatient therapy and inpatient care. A majority of the employees are Mental Health Technicians that work directly with patients. The enrollment of employees and access to discounted ridesharing and bus passes started in June 2020. The enrolled employees were offered 10 discounted Lyft rides and a fully subsidized digital bus pass each month. Employer A discontinued the program in January 2021.

Employer B: Employer B is one of the biggest employers in the South Bend region. Three separate divisions participated in the program. The work profiles of enrollees are custodian, chef, cook, dishwasher, and housekeeping services. At this employer, the program was offered in three phases that differed in terms of enrollment process and number of rides offered. The Initial pilot phase was launched in September 2019 with 103 participants enrolled. The second phase was launched in March 2020 with 92 additional participants enrolled. Since the employer separately provides bus passes to all employees, the enrolled employees were only offered 10 discounted Lyft rides each month.

In the third phase, launched in January 2021, employees had to re-enroll. A total of 106 participants enrolled, some of whom were enrolled in phase I and II. Across all three phases, 266 participants enrolled in the program. For Phase III, the program was changed from 10 rides per month to 50 rides for the entire year, and Uber was added as an alternative option to Lyft. Thirty rides could be used anytime for $5 per ride and the remaining twenty rides were only available on night and weekends for $4 per ride.

[3] Some employers required managers to collect requests for enrollment from employees. These individuals completed a password-protected Google form to trigger the enrollment process, providing employee name and cell phone number.

Employer C: Employer C is a school corporation with a majority of the enrolled employees working in food and transportation services. The enrollment of employees started in August 2020. The enrolled employees were offered unlimited digital bus passes and 10 discounted Lyft/Uber rides per month at $5 per ride.

Employer D: Employer D provides job training, employment placement services, and other community-based programs. The program was offered to employees working for the employer as well as those who work with other employers but received job training from the employer. The enrollment started in March 2021 and the enrolled employees were provided with a free digital bus pass and 10 Lyft/Uber rides per month at $3 per ride.

ENROLLMENT

Table 1: Enrollment Statistics

Employer	Total eligible employees	Enrolled employees	Percentage enrolled
Employer A	287	41	14%
Employer B	2,584	265	10%
Employer C	478	29	6%
Employer D	137	39	28%
Total	3,486	374	11%

Total eligible employees are those who worked for at least one month after the program was available to them. Enrolled employees are those that enrolled in the program at some point in time.

While the program was made available to all hourly employees at participating employers (or their specific divisions), we are interested in studying those who choose to enroll in the program. The program enrollment has been limited as seen in **Table 1**. Across the four employers, out of all eligible employees, around 11% (374) enrolled in the program. Employer B leads in terms of total enrollments, probably because they have more eligible employees, the program has been in effect for a longer time (since 2019), and the City staff helped employees with enrollment during on-site visits (pre-COVID). In Phase I of the program in 2019, around one-third of the eligible employees enrolled. Hence, there is reason to believe that at least part of the lower enrollment was driven by COVID-19 since people became more apprehensive about using shared transit services. The COVID situation also made it impossible for the City's staff to visit employers to enroll employees in person, likely further reducing enrollment.

FEEDBACK FROM THE INTERVIEWS

The most cited reason for not enrolling in the program was having one's own vehicle and therefore not feeling a strong need for an additional means of transportation. Typically, non-enrollees already have secure backup options such as rides from family members, friends, etc. so they don't feel the need for an additional backup option. Lack of awareness about the program was not mentioned as an issue, nor was difficulty in enrollment. A few non-enrollees suggested that they chose to not enroll so that other employees who need the program most could enroll.

Employees were generally very positive about the enrollment process. Many mentioned City staff helping them to enroll when they visited their workplace in 2019. For later enrollments, the employees usually found the enrollment process to be smooth. In case of difficulties, which some employees did have, they mentioned being able to solve them with their supervisors. We believe that the City has done a commendable job of helping employees enroll in the program and training the supervisors.

> [About the enrollment process] "Oh, it was easy. It was fair and easy. I got stuck [while trying to use the benefit] actually this year. I think it [the subsidy] was not showing up and the person [from the City] who helped me was very helpful like they did never stop…., They kept asking me and checking on me. So yeah, it's fairly easy actually." — Enrolled employee from Employer B

At Employer B, where employees had to re-enroll at the beginning of 2021 (Phase III), we see only a small percentage of those who had enrolled choose to re-enroll (60/239 ≈ 25%). One explanation offered by interviewees was difficulty in getting Lyft/Uber rides due to driver shortage, which made the program not useful for many. Some employees also said that they were unaware that they had to re-enroll in Phase III. It is also likely, as one senior-level employee suggested, that some employees were motivated to enroll in Phase I because of the nearly free rides ($0.01 per ride). Employees likely chose not to re-enroll since in Phase III there weren't any nearly free rides.

DEMOGRAPHICS OF ENROLLEES

In **Table 2** we compare the selected demographics of employees from three of the employers who enroll in the program.[4] We found a higher proportion of women in the enrolled employees, suggesting that women are more likely to enroll in the program than their male coworkers.[5] The proportion of enrollees who identify as Black is comparable to the proportion of Blacks among all employees.[6]

The wage comparison yields contrasting results. The enrolled employees have lower wages as compared to all employees for Employers A and C. For Employer B, the relationship is reversed. It is not clear why the wage of the enrolled employees is higher only for Employer B. However, we can conclude that women are more likely to enroll in the program and low-wage workers are more likely to enroll in the program at two of the three employers. One explanation, mostly given the low-wage of the enrollees, could be that these groups are more transportation insecure.

Table 2: Employee Demographics: Proportion of employees

	Employer A		Employer B		Employer C	
	All	Enrolled	All	Enrolled	All	Enrolled
Women	68 %	85 %	61 %	63 %	85 %	92 %
Black	41 %	45 %	19 %	25 %	50 %	50 %
White	50 %	55 %	46 %	46 %	41 %	25 %
Hourly wage	$ 15	$ 14	$ 12	$ 15	$ 13	$ 11
Total employees	**264**	**35**	**3,442**	**265**	**825**	**15**

To further understand who enrolls in the program, we use the methodology developed by Gould-Werth, Griffin, & Murphy (2018) to calculate the Transportation Security index (TSI) among the survey respondents. This index has a value 0-6 with the following interpretation:

- 0: Transportation secure
- 1-2: Minimally insecure
- 3-4: Moderately insecure
- 5-6: Severely insecure

In **Table 3**, we compare the TSI scores of the enrolled employees collected from the survey. We find a higher proportion of moderately and severely insecure employees in the enrolled employees (23% + 21% = 44%) as compared to all the employees (13% + 9% = 22%), suggesting that these employees are more likely to enroll in the program. Alternatively, we can say that enrolled employees are more likely to be moderately or severely insecure. Due to low number of survey responses, these numbers must be interpreted with caution.

[4] We do not have this data for Employer D

[5] As shown in Appendix III, at two out of three divisions of Employer B (Division 1 and 2), the proportion of women and black enrollees is higher in the enrolled group. Division 3 seems like an outlier as the proportion of women enrollees is comparable and that of black enrollees is higher than all employees. The higher number of enrollments in Division 3 is affecting the numbers for Employer B in Table 2.

[6] Among the interviewees, roughly 30% identify as Black.

Table 3: TSI and enrollment – Employer B

TSI category	All	Enrolled
Transportation Secure	67 %	41 %
Minimally Insecure	11 %	15 %
Moderately Insecure	13 %	23 %
Severely Insecure	9 %	21 %
Total survey respondents	150	34

Comparing the hire year, a proxy for age, there does not seem to be a trend in enrollments by age. The proportion of full-time employees in the enrolled employees is 67%, which is higher than the proportion of total full-time employees (38%). Thus, there is some evidence that full-time employees are more likely to enroll.

While the total number of enrollments are low as a proportion of total eligible employees, women and full-time employees are more likely to enroll. Low-wage workers are more likely to enroll in the program at two of the three employers. The enrolled employees are also more likely to be moderately or severely transportation insecure, which suggests that the program is being used by those who need it. This is likely due to the self-selecting nature of the program.

USAGE

Between March 2020 and July 2021, the program provided 1760 Lyft/Uber rides taken by 110 employees and 845 bus rides taken by 19 employees at the four participating employers. To get a sense of the number of ride users as a proportion of enrolled users, we compare the number of users and enrollees in **Table 4**. From the number of rides, it can be seen that the Lyft/Uber rides were the most used option followed by bus rides. Notably, there was no usage of the carpool service, thus it is not shown on the table below. Also, there was no bus rides provided at Employer B since the employer already offers free bus pass to its employees. 29% of enrolled employees took a Lyft/Uber/bus ride at some point during the program.

Table 4: Rides usage statistics - until April 2021

Employer	Lyft/Uber rides	Lyft/Uber users	Bus rides	Bus users	Enrolled	User Proportion
A	87	9	11	1	41	22%
B	1588	90			265	34%
C	84	10	203	6	29	34%
D	1	1	631	12	39	2.5%
Total	1,760	110	845	19	374	29%

Lyft, Uber, and Bus rides taken from March 2020 - July 2021.

The low usage of the program may not be interpreted as a low need for the program. Many interview respondents complained about the unavailability of Lyft/Uber rides, especially in the morning hours. Lack of availability likely contributed to low Lyft/Uber usage even when the need existed.

"As far as Uber goes, it's actually kind of scary because you know, I have to wake up super early to make sure to be able to get the Uber, and if I don't get the Uber to try and keep trying to get it to keep requesting so I have to give myself a few hours just to get ready to go to work."

"That [ridesharing outside of Ride Guarantee] was quite the fiasco. A lot of times I could have gotten here faster if I walked. There are a limited number of drivers and it takes forever in a million years and then we get here."

"The hiccups with the driver availability kind of outshines those positives [of Ride Guarantee] at this point anyway, [in] just the last I guess six months or so."

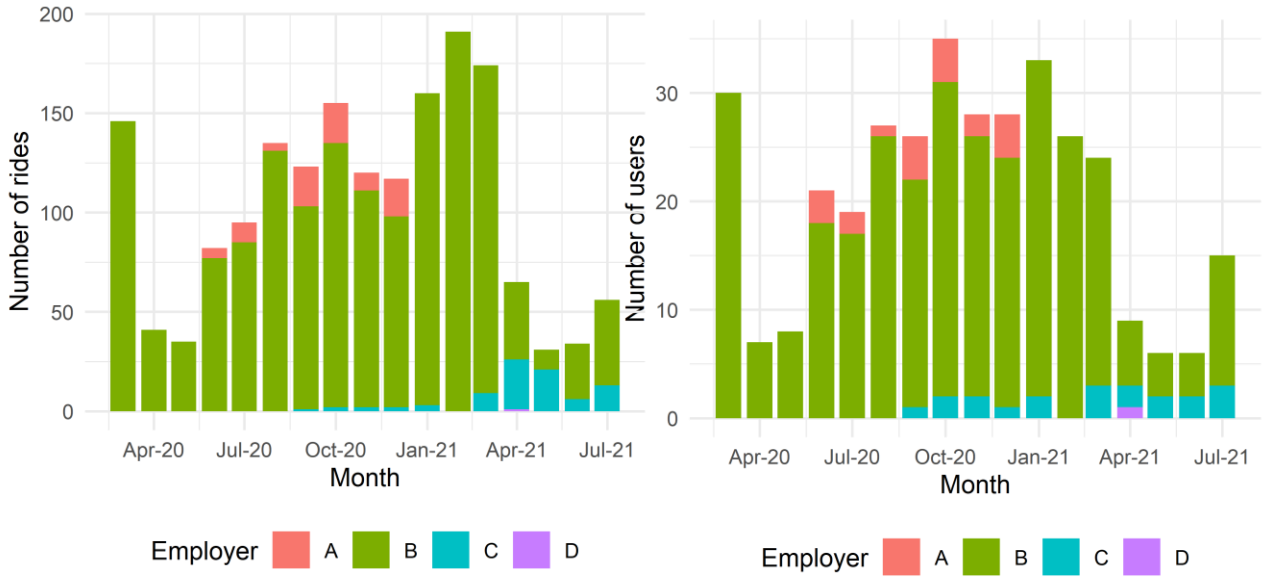
In the interviews, roughly half of the enrollees indicated that they used the program as a backup option. For example, when a personal injury prevented them from driving or their car needing repairs. However, for the other half, the Lyft/Uber or bus is the only option.

"I used it last year sometime. I think my car broke down completely, so I didn't have no car…I used this program … for at least like 15 to 20 days."

"In January, I fractured my foot. And so, it was hard for me to get around with the boot, so from February I had the boot for six weeks… I think I used it [Ride Guarantee] more then."

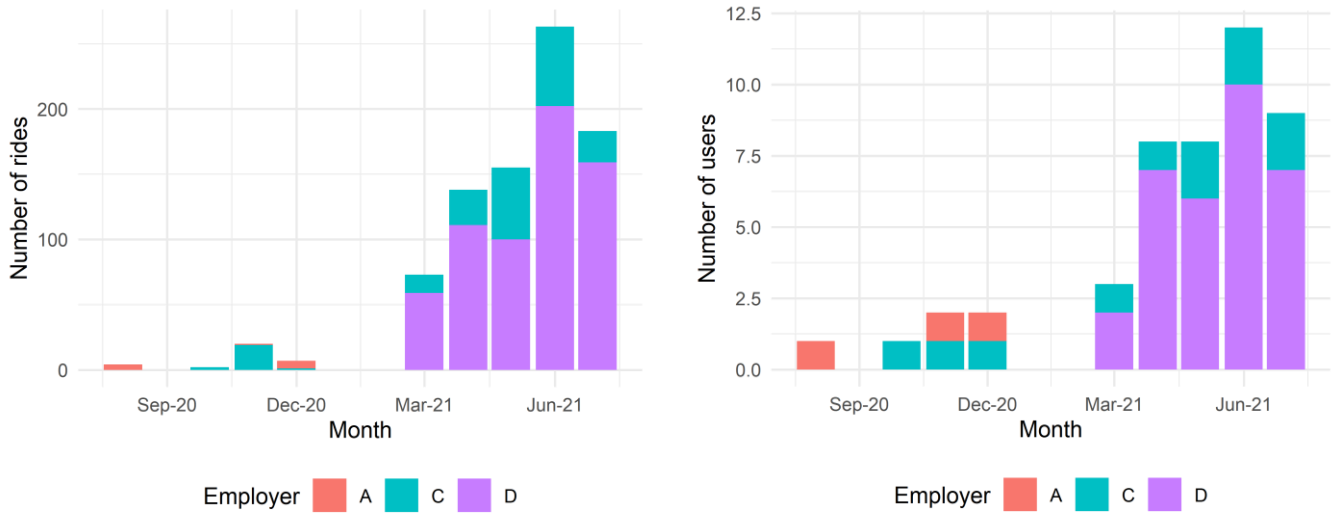
The monthly distribution of the Lyft and Uber rides can be seen in **Figure 1**. The effect of COVID-19 restrictions can be seen in the decline in rides and users in April and May of 2020. The decrease in rides taken between April - June 2021 is likely related to the fact that starting January 2021, 50 rides were given for the entire year and the heavy users exhausted them by end of March. This is consistent with the responses from the heavy users during the interviews.

Figure 1: Rides and riders – Lyft/ Uber



The monthly distribution of the bus rides can be seen in **Figure 2**. In 2020, the number of bus rides taken by program participants was very low. Starting March 2021, the bus rides and riders have increased considerably driven by users at Employers C and D. Since Employer B already offers its employees free bus rides, the bus pass wasn't provided at Employer B. Comparing with the previous figure, it can be seen that employees at Employer D predominantly use the bus rides, and rarely use ridesharing. This was corroborated by the interviews in which all the employees at Employer D used the bus pass.

Figure 2: Rides and riders – Transpo



A large proportion of those enrolled do not use the program (71%). This is likely due to COVID-19 restrictions and program use as a backup option. Among employees who had access to both options, Lyft/Uber was used more compared to the bus pass. Employees at two employers, who are mostly low-wage workers, predominantly used the bus. With better driver availability, Lyft/Uber usage could have been even higher.

QUALITATIVE ANALYSIS

Interviews were conducted with 40 employees to better understand program usage and identify effects on other outcomes not covered in quantitative analysis[7]. The majority of employees (33/40) were from Employer B and the number of women interviewees represented 2/3 of the total interviewees (27/40). This is assuring as the most enrollments were at Employer B and women were more likely to enroll in the program. A large proportion of them were enrolled, which was by design as we were more interested in better understanding their experiences. Thus, the composition of interview participants is reflective of the population of enrolled users.

The interviews were semi-structured with the same set of open-ended questions asked to all the respondents. The common themes that emerged are discussed in the next section.

Table 5: Interview participants by employer

Employer	Interview participants
Employer B	33
Employer D	5
Employer C	2
Total	40

Table 6: Interview participants by gender

Gender	Interview participants
Women	27
Men	13
Total	40

Table 7: Interview participants by enrollment

Enrollment	Interview participants
Enrolled	23
Not-enrolled	17
Total	40

Table 8: Interview participants by race

Employer	Interview participants
White	19
Black	12
Other or unknown	9
Total	40

QUALITATIVE ANALYSIS FINDINGS

1. Reliable transportation is an issue for many employees

More than a third of the interview respondents (38%) do not own a car and use either bus (18%), rideshare (12%) or rides from someone (8%) to get to work. Reliability of these options is not always great. For example, the bus has limited availability early in the morning, late in the evenings and over the weekends. Ridesharing, especially since the rise of COVID-19, has been unreliable due to driver unavailability.

For some employees, the problem is more chronic. For example, those who use rideshare as a regular mode of transport and are not located close to the bus route and hence cannot use the bus pass. The program (by design) is not sufficient for them, as it is not meant to solve chronic transportation problems.

[7] We did not interview any employees at Employer A as the employer had discontinued the program a few months before the interviews and we chose to focus on current enrollees.

2. Program usage – backup as well as primary mode

Among all enrollees, 52% use the program as a primary mode of transport for work-related rides, while the remaining 48% used it as a backup mode. Among those who use the program as a primary mode, an equal number of these use the bus and rideshare. Employees who use the rideshare as primary mode of transport are the ones who have used all of their 50 discounted Lyft/Uber rides in 2021.

> [Employee on what made him/her enroll in the program] "I think the most important thing that made me enroll in the program is what it's doing for me: My emergency backup. When I need a ride, it's there, right?"
> — Enrolled Employee from Employer B

3. The program helps some employees to keep their jobs

Among all interviewees, 12% said that the program helped them keep their jobs. One respondent mentioned that it was only possible for her to get her job because of the bus pass the program offered.

4. For many employees, the program subsidizes the regular mode of travel

For many program users, the program does not change the mode of transport but subsidizes what they were using already. This is the case for all the 52% of users who use the program as primary mode of transport. All of these employees were using rideshare or bus before the program. This is also why there was no effect on self-reported commute time.

> "I mean, it's such a great help. I was like wow. I actually have a little bit of extra money in my pocket because of that" [Ride Guarantee program]

5. The program helps reduce stress in multiple ways

Almost all the enrolled employees mentioned that the program helps to reduce stress related to transportation. This could be because of a reduction in multiple aspects of transportation such as reduced amount of time required for planning, feeling more comfortable having a backup option, monetary savings, or not having to wait at the bus stop when it's cold.

> "Honestly, I love it [Ride Guarantee]. It has taken actually a lot of stress off of me and made me able to get to school [for job training], so I definitely love it."

> "I like knowing that it's [Ride Guarantee is] there and I didn't have to worry. How am I going to get to work?"

6. Employees appreciate their employer offering the program

All the employees, even the non-enrolled ones, are grateful to their employers for offering the program. While the non-enrolled employees may not be using the program, they typically know some co-worker who have transportation issues and appreciate the employer offering the program. Nearly all the interview respondents have recommended the program to their co-workers.

> "Now that I, you know, have the unlimited bus passes its fabulous. No, I have absolutely no stress. Before that I always had to worry about having enough money to get on the bus."

7. Not many employees were aware of the carpooling service

None of the employees (where carpool service was available) mentioned the carpooling service while describing the program. One manager involved in the program since 2019 wasn't aware of the carpooling service. Although a couple of employees expressed interest in employer facilitated carpooling.

> "I think the programming itself is good, so I think it's a good thing for the company to be doing it and for the city of SB to be doing it so."

8. Non-enrollees did not enroll because they did not think they need the program

Employees who do not enroll typically have a car and backup (for example, ride from family members or friends) and don't feel the need for another backup.

The qualitative analysis reveals that the program helps employees to reduce stress related to transportation and the employees appreciate their employers offering the program. The program is being used as both a backup as well as primary mode of transportation. For many program users, the program subsidizes their regular mode of travel. This is why there was no effect on self-reported commute time. The analysis also reveals that around a third of the interviewed employees do not have reliable transportation. The program has helped many employees to get and keep their jobs, highlighting the need for such a program.

QUANTITATIVE ANALYSIS

Quantitative analysis was conducted to estimate the program's effect on work hours, absences and punctuality. We calculate the change in the work hours, absences and tardies (late arrivals) by the enrolled employees before and after the program and compare that to the change in not enrolled employees. Focusing on enrolled and non-enrolled employees rather than users and non-users ("treatment-on-the-treated") allows us to recover "intent-to-treat effect" of the program (Detry & Lewis, 2014)[8]. In the next three sections, we discuss results for Employers A, B, and C separately. Attendance data is not available for Employer D. The choice to analyze each employer separately is determined by the quantitative analysis method employed. The method requires comparing enrollees and non-enrollees who are likely comparable within an employer rather than across employers.

EMPLOYER A

Comparison of enrolled and non-enrolled employees before enrolling in the program

Table 9 shows the summary statistics of main outcome variables before the program. The enrolled employees worked 4.2 extra shifts per month, 48 extra hours per month, 0.84 extra hours per shift, and had fewer tardies as compared to not-enrolled ones before the program. Comparing the absences, we do not see significant difference between the enrolled and the not-enrolled employees. The difference in means is statistically significant for almost all the variables. The higher work hours of enrolled employees is consistent with the claim that motivated employees are more likely to enroll in the program.

Table 9: Monthly summary Statistics for Employer A employees before the program

	All Mean	Enrolled Mean	Not enrolled Mean	Difference in means	Significant*
Work hours	170	212	164	48	Yes
Number of absences	1.2	1.4	1.2	.27	No
Number of tardies	.21	.15	.23	-.077	Yes
Absences per shift	.089	.073	.092	-.019	No
Tardies per shift	.011	.0067	.012	-.0051	Yes
Number of shifts	20	23	19	4.2	Yes
Hours per shift	8.5	9.2	8.4	.84	Yes
Income	₱2,808	₱3,555	₱2,694	₱861	Yes

Summary statistics based on 35 enrolled and 356 not enrolled employees. Before = April 2019 - May 2020.

** = Statistically significant at 95% significance level.*

Program effects after enrolling in the program

Table 10 summarizes the program effect on work hours, absence per shift and tardies for Employer A. The employees in the enrolled group worked for 9.07 extra hours (9%) per month after enrolling in the program as compared to the not-enrolled employees. This increase is mostly due to working for 1.27 extra shifts per month, and not so much due to working longer shifts. Overall, the employees in the enrolled group earned an extra $151 per month after enrolling in the program as compared to the not-enrolled employees. Employees in the enrolled group have 0.03 fewer absences per shift and similar tardies per shift than employees in the non-enrolled group. Due to the large standard errors, we cannot reject the null hypothesis that the program had no effect on absences and tardies.

[8] The intent-to-treat effect calculates the averages effects of users and non-users in the enrolled group. Since many enrollees do not use the program, and hence will not show any effect, combining them with the users to calculate the intent-to-treat effect of the program will be smaller in magnitude than focusing on the users. However, the intent-to-treat is a more policy relevant as the policy choice is to choose whom to enroll and not who uses the program within this group.

Table 10: Program effects on key outcomes for Employer A employees after enrolling in the program

Effect of program on	Effect	Significant
Work hours (hrs)	9.07	Yes
Absences per shift	-0.03	No
Tardies per shift	0	No

** = Statistically significant at 95% significance level.*

EMPLOYER B

Comparison of enrolled and non-enrolled employees before enrolling in the program

Tables 11 shows the summary statistics of main outcome variables before the program for Employer B. The enrolled employees work for 29 extra hours a month, had 0.05 fewer absences and 0.15 extra tardies per shift. They also worked for 2.8 extra shifts and 0.83 extra hours per shift as compared to not-enrolled employees. The difference in means is statistically significant for all the variables.

Table 11: Monthly summary Statistics for Employer B employees before the program

	All mean	Enrolled Mean	Not enrolled Mean	Difference in means	Significant*
Work hours	100	126	97	29	Yes
Absences per shift	0.14	0.097	0.15	-0.05	Yes
Tardies per shift	0.084	0.097	0.082	0.15	Yes
Number of shifts	15	17	14	2.8	Yes
Hours per shift	6.5	7.3	6.4	0.83	Yes

*Before = February 2019 - August 2019. * = Statistically significant at 95% significance level.*

Program effects after enrolling in the program

Table 12 summarizes the program effect on work hours, absence per shift and tardies for three divisions of Employer B. We separately analyze each division as the employees within a division are more comparable to each other. In Division 1, the employees in the enrolled group worked for 1.29 extra hours per month, have 0.03 extra absences per shift and 0.02 extra tardies per shift after enrolling in the program as compared to the not-enrolled employees. None of these effects are statistically significant.

Table 12: Program effects on key outcomes for Employer B employees after enrolling in the program

Effect of program on	Employer B – Division 1		Employer B – Division 2		Employer B – Division 3	
	Effect	Significant*	Effect	Significant*	Effect	Significant*
Work hours (hrs)	1.29	No	-2.41	No	3.77	No
Absences per shift	0.02	No	0.05	No	-0.02	No
Tardies per shift	0.02	No	0	No	0.02	No

** = Statistically significant at 95% significance level.*

EMPLOYER C

Comparison of enrolled and non-enrolled employees before enrolling in the program

Table 13 shows the summary statistics of main outcome variables before the program. The enrolled employees worked for 4.5 extra hours, had 0.025 fewer absences, and 0.012 more tardies per month as compared to not-enrolled ones before the program.9 None of these differences are statistically significant.

Table 13: Monthly summary Statistics for Employer C Employees before the program

	All Mean	Enrolled Mean	Not Enrolled Mean	Difference in means	Significant*
Work hours	108	113	108	4.5	No
Number of absences	.046	.021	.046	-.025	No
Number of tardies	.019	.031	.019	.012	No
Partial-day absences	1.2	1.4	1.2	.19	No
Monthly income	$1,337	$1,315	$1,337	-$22	No

Summary statistics based on 12 enrolled and 646 not enrolled employees. Before = September 2019 - August 2020.

** = Statistically significant at 95% significance level.*

Program effects after enrolling in the program

Table 14 summarizes the program effect on work hours for Employer C.9 The employees in the enrolled group work for an extra 7.21 (24%) hours after enrolling in the program as compared to the non- enrolled employees. Due to the large standard errors, we cannot reject the null that the program had no effect on work hours[10].

Table 14: Program effects on key outcomes for Employer C employees after enrolling in the program[11]

Effect of program on	Effect	Significant*
Work hours (hrs)	7.21	No

** = Statistically significant at 95% significance level.*

[10] This is based on 12 out of 29 enrolled employees that we observe in the pre-period. A significant number of enrollees are contractual and their work hours are unavailable.
[11] we have not drawn conclusions on absences given issues with data accuracy. In the pre-period, out of the 15 enrolled employees, only one employee had a total of two absences in September and November 2019.

QUANTITATIVE ANALYSIS FINDINGS SUMMARY

1. **Work hours:** Employees in the enrolled group generally work *more* than employees in the not enrolled group by as much as 9 hours after enrolling in the program. These effects are statistically significant only for Employer A. For Employer A, where we do have information on the number of shifts, the increase in work hours is due to working one extra shift.
2. **Absences and punctuality:** Across employers, employees in the enrolled group have *similar* absences per month than employees in the not enrolled group after enrolling in the program. The minor differences are not statistically significant.

There is no consistent evidence that the program led to a change in work hours, absences or tardies. This is likely due to the low ride usage by enrollees, no change in the mode of transport for some of them and averaging the effect across all enrollees.

WHY DO WE NOT SEE ANY SIGNIFICANT EFFECTS IN QUANTITATIVE ANALYSIS?

The small and inconsistent effects of the program could be because of a few reasons. Firstly, program impact on work hours, absences, and tardies is driven by ride usage. Since ride usage is limited, the program impact should be small. Secondly, even among users, the program will not have an effect on many for whom the program did not change the mode of transport (the program only subsidizes what they were doing before enrolling) or replaced asking rides from friends and family members during episodes of transportation issues. These small effects are difficult to differentiate from noise in the data.

RECOMMENDATIONS

PROGRAM DELIVERY

We recommended to continue offering the bus pass with a limited number of ridesharing rides.

1. Bus pass:

a) For some employees, a bus pass is very valuable based on the interview responses. The City can make efforts to communicate the value employees see in this to incentivize employers to providing these on their own. The low cost of the bus pass (31-Day Adult Pass costs $35.00) should make it more likely to be provided by employers in the future. The City can also think of subsidizing in case employers are unable to provide the bus pass. Given the relatively low cost of this solution, it is highly recommended that this continue to be offered. This is also likely to improve the bus system usage and profitability.

2. Lyft/Uber rides:

a) A fixed number of Lyft/Uber rides to all enrollees are recommended as this can be used as a back-up transportation option for employees to go to work.

b) In addition, a few non-work-related Lyft/Uber rides are also recommended. These can be used to reachplaces not accessible by bus or when bus is unavailable. For example, visiting a doctor or other appointments. A couple of interview responders suggested this would increase the value of the program.

PROGRAM TARGETING

From the TSI analysis and interview responses, we argue that those who enroll in the program are those who need it the most. Further improvement in program targeting is possible through the following:

1. Among employees: offer program to those who do not have cars. Those who have cars can typically afford to take a regular-priced Lyft/Uber ride.
2. Among employers: the program, especially the bus pass, seems to be most valuable for low-wage employees. Hence, the City should prioritize employers whose employees are likely to be low-wage.

MEASURING IMPACT

It is recommended to move away from focusing on work hours, absences and tardies. The program has large and consistent effects in other outcomes such as reduced stress and ability to keep a job, as outlined in the qualitative analysis section. Hence, measuring the program impact on these should be the focus in future evaluations.

OTHER CONSIDERATIONS

1. Lyft/Uber discounts for scheduled rides should be applied while booking the ride: Lyft/Uber ride discounts cannot be applied while booking rides in advance. For such rides the discounts can be applied only after the ride is taken. Interviewees reported this as inconvenient and stressful. It would be helpful if the discounts can be applied to scheduled rides.
2. Increase awareness of the digital bus pass among bus drivers. Some bus drivers are not aware of the digital bus pass. Increasing the awareness of the digital bus pass should help encourage the digital bus pass usage.
3. Lyft/Uber driver availability: Better Lyft/Uber driver availability should help to increase program usage.

We recommended to continue the program as there is a clear need among the target population. With a limited number of Lyft/Uber rides and bus passes, it can be possible to position the program as a transportation-as-a-benefit model. The City can consider subsidizing the program cost, especially at the low-wage employers where even a low-cost option of a bus pass is highly valuable. We also recommend measuring the program impact on outcomes such as reduced stress and ability to keep a job, potentially using surveys, in future evaluations.

CONCLUSION

Over the time period analyzed, we can conclude some expected benefits of the program were not realized (i.e. positive effects on work hours, absences, and tardies for enrolled employees) while other benefits were identified (i.e. decreased stress, increased employer appreciation).

Because of the program's relatively small sample size of enrollees and active program users (despite efforts to expand the program), it is not surprising that the effect on work hours, absences and tardies is mixed and statistically insignificant. To see no effect on these outcomes is itself interesting and should be useful in designing further iterations and evaluation metrics of the program.

The qualitative analysis reveals that the program helps employees to reduce stress related to transportation and the employees appreciate their employers offering the program. The program is being used as a backup as well as primary mode of transportation and, for many program users, the program subsidizes their regular mode of travel. The analysis also reveals that around a third of the interviewed employees do not have reliable transportation. The program has helped them to get and keep the jobs of many employees, highlighting the need for such a program.

It is recommended to continue the program as there is a clear need among employees. With a limited number of Lyft/Uber rides and bus passes, it can be possible to position the program as a transportation-as-a-benefit model. The City can consider subsidizing the program cost, especially at the low-wage employers where even a low-cost option of bus pass is highly valuable.

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APPENDIX

APPENDIX I: QUANTITATIVE METHOD

This is implemented using a fixed effect regression model with employee and year x month fixed effects and number of hours, absences and tardies as dependent variable. The month fixed effects control for seasonal changes in outcomes (including COVID) and employee fixed effect control for any employee-specific characteristics that may affect outcomes. A critical assumption for the estimates to be valid is that the enrolled and not-enrolled employee outcomes should trend similarly in absence of the program (parallel trends assumption). But there are concerns if it was satisfied in 2020 possibly due to COVID-related disruptions.

APPENDIX II: ENROLLMENT BY DIVISION AT EMPLOYER B

	Division 1		Division 2		Division 3	
	All	Enrolled	All	Enrolled	All	Enrolled
Women	55 %	66 %	60 %	71 %	62 %	61 %
Black	30 %	30 %	16 %	15 %	16 %	26 %
White	41 %	43 %	43 %	41 %	48 %	47 %
Hourly wage	$ 13.18	$ 16.99	$ 10.52	$ 14.73	$ 11.69	$ 14.09
Total employees	**559**	**47**	**288**	**41**	**2,595**	**177**

APPENDIX III: INTERVIEW QUESTIONNAIRE

Section I: Broad Transportation Questions

I'm going to start off by asking you some questions about your transportation situation in general and then I'm going to ask you more specific questions about the Ride Guarantee program.

[1] I'm really interested in understanding your specific transportation situation, could you tell me whether you use any of the follow to get from place to place? *(probe on "yes" answers)*

[a] Driving
Do you have your own car?

- How reliable is your car? Are there ever times you cannot use it because someone else is driving it? Are there ever times you can't use it because you don't have gas or it needs repairs?
    - Follow up for concrete details if yes: ex. When is the last time you were not able to drive your car? Tell me about what happened.

- Do you ever borrow a vehicle from a friend, family member, neighbor, coworker, or acquaintance?
    - If yes, probe: When is the last time you borrowed a car? Tell me about what happened.

Do you share this car with anyone else in your household?

[b] Getting a ride from a friend, family member, neighbor, coworker, or acquaintance (including carpooling)

- Tell me about the last time you got a ride from a friend, family or coworker. If they say they don't that is your answer. IF they have an answer probe further. How often do you get rides from this person? What are the circumstances? Do you pay them? Why this person and not others? Do you get rides from anyone else?

[c] Taking a taxi service or rideshare (e.g., Uber, Lyft)

- Tell me about the last time you used Uber or Lyft. What was the situation?
    - Is it ever hard to pay for the cost of these services?

[d] Taking the bus

- Tell me about the last time you took the bus. What was the situation?
    - Why do you usually use the bus/train to get around?
    - How far is the nearest transit stop from your house?
    - Is it ever hard to pay for the cost of bus fare?
    - How many transfers does it take you to get to work?
    - How long is your commute?
    - How reliable is service?

[2] In general, do you find it easy or difficult to get around?

- If easy, what makes it easy?
- If difficult, tell me more—what makes it difficult?
- Do you find it easy or difficult to get to work specifically?
    - *Probe:* what are the barriers to getting to work? What would make it easier for you to get around? To get to work specifically?

[3] How much money do you think you spend on transportation in a typical week? For example, gas, bus fare, paying people for rides etc.

[4] Do you ever have difficulty paying for transportation related costs?

If yes…

- can you tell me more about one of those times?

[5] Do you ever find you have to make tradeoffs between paying for transportation costs and other things like food, or rent etc?

- If yes, tell me the last time you made a tradeoff? When you have to make tradeoffs, is this the one you usually make?

[6] Are you ever unable to afford to get someplace you want or need to go?

- *If yes,* can you tell me about the last time you were unable to afford to get someplace?

[6] Sometimes it can take time to plan out how to get to the places we need to go. Do you ever spend time planning out how you will get around?

If yes…

- What are the places you spend the most time planning to travel to?
- Do you spend time planning how you will get to work?
- Tell me more about how you plan… Routes? Time? Money Arranging rides?

[7] Do you ever make backup plans in case you end up having a problem with transportation?

If yes: How often do you think about a backup plan? How often do you end up using it (in the last 30 days)

[8] A lot of people tell us that making arrangements to get around, saving money for bus fare and gas, worrying that plans may fall through etc.. is stressful. Do you find these things stressful? Tell me more.

[9] Does planning out your transportation cause you stress?

If yes: Can you tell me more about that?

Section II: General employment Questions

[1] Can you tell me about your job? What do you do there?

[2] How long have you worked there?

[3] How many hours a week do you typically work?

Do you have a set schedule or do your shifts vary?

[4] Tell me about your route from home to work and work to home. Describe your route to me in detail.

- What stops do you make? When do you leave your house? How long does it take? Do you walk to the bus stop? How many transfers?
- Do you stop at the store on the way home? Child care? Etc…

[5] Thinking about the past 30 days, have you ever had to miss work because of problems with transportation?

- If yes, can you tell me more about that time(s)?
- Did this cause any problems for you with work?

[6] In the past 30 days, have you ever been unable to take an extra shift or work additional hours because of transportation?

- If yes, can you tell me more about that time(s)?
- if you had different transportation would you have taken an extra shift? Or worked more hours?
- Did this cause any problems for you with work?

[7] In the past 30 days, have you been late to work because of problems with transportation?

- Can you tell me about the time you were late?
- How did your boss respond to you being late? Were they understanding?
- Did this cause any problems for you with work?

[8] Did COVID-19 pandemic affect your work hours/ schedules?

- Were you asked to work for different schedules than usual?
- Did your total work hours increase or decrease as compared to usual?

[If yes to either of the above] Did any of this affect your weekly income?

Section III: Specific Questions about the Ride Guarantee program

Employees who <u>do not</u> enroll

[1] Are you aware of the Ride Guarantee program?

If yes, where did you first hear about the program?

[2] Can you tell me in your own words how you think the program works?

[3] What are your general thoughts about the program?

Do you think it's a good idea? Why or why not?

[4] I see that you are not currently enrolled in the program, is that right?

Can you tell me more about why you did not enroll?

Additional probes after respondent answers:

Do any of these things play a role in your not enrolling?

- Did not think I will be needing discounted Lyft rides

- No bus connectivity
- no credit card?
- savings of $6 worth the hassle? (e.g. you stay very close to the workplace)
- No smartphone
- Too much paperwork
- Privacy/trust

[5] Some people tell us that the program is not useful because it does not allow them to take trips outside of work (or something). For example, the program might not allow you to pick your kids up on the way home from work. Is this true for you?

Employees who enroll but do not use the program often

I see that you are currently enrolled in the Ride Guarantee program

[1] Can you tell me how you heard about the program?

[2] Can you tell me in your own words how you think the program works?

[3] What are your general thoughts about the program?

[4] Why did you decide to enroll in the program?

What do you consider to be the most important reason you enrolled?

[5] What has been your experience with the enrollment process?

Have you faced any issues enrolling?

[1] Although you're enrolled, I see you don't often use the program. Have you used it at all?

If yes,

- Can you tell me about the last time you used it? What were the circumstances? Walk me through it?

[2] Are there any changes to the program that would allow you to use it more often?

[3] Are there any barriers to using the program?

[4] If you could change one thing about the program, what would it be?

- Are cost savings not worth it? OR Lyft ride still too expensive? why use once? bad experience?
- Can you recall situations where you forget that you have enrolled in the program?

[5] Can you recall any instances where perhaps you were late to work or had to miss work due to transportation issues where utilizing the program might have prevented this?

Employees who enroll AND use the program

[1] How often would you say you use the program?

[2] The last time you used the program, why did you decide to use it?"

- Probe: Was this the most common situation for you?
- (if no) Please describe another situation when you decided to use the program.

[3] In your job, can you take on extra shifts if you wish? OR How much flexibility you have in terms of the hours you work or the shifts you take?

Has the program allowed you to take extra shifts or work more hours?

If yes, can you tell me about a time you take an extra shift/ reach early/ work longer because of the program?

[4] Have you ever used the program to avoid missing work?

- Tell me more, what were the circumstances? Walk me through it?

[5] Have you been able to use the program to avoid being late to work?

- Tell me more, what were the circumstances? Walk me through it?

[6] How does the program affect the time it takes you to travel to work?

[7] How does the program affect the amount of time you spend planning transportation to get to work?

[8] Does the program help alleviate stress related to transportation?

[9] How has being in the program impacted your household? (probe: have you been able to spend more time with family? Experienced less stress? Did someone else get to use a shared vehicle?)

[10] Do you think the program helped you keep your job? Have you ever worried you would lose your job because of transportation?

[11] Have you recommended/ Would you recommend the program?

- what changes they would make to the program to make it work better?

[12] What is the one change to your transportation situation that would make your life easier?

[13] Are there other challenges besides transportation in your life that make it hard to get to work, get to work on time, and take additional shifts? Challenges your employer could help with?

[13] Do you feel that the employer cares about your wellbeing by offering the program? Has the program changed your opinion of your employer?

Employers/ Supervisors

[1] Tell me what you know about the Ride Guarantee program. How does it work? What is the cost to enroll?

[2] Did you recommend this program to your team? Why/why not?

[3] Please describe how this program impacted your team?

- Probe: on time to work, could pick up more shifts, could stay later? Lower Stress?

[4] Why do you think some of your employees enrolled in the program and others didn't?

[5] Do you think that the program is valuable to your team? Why/why not?

[6] Do you personally know of people on your team who have benefitted from the program, or situations where the program helped a member of your team? Tell me about that.

[7] Did COVID-19 pandemic affect your team's work hours/ schedules?

- Were they asked to work for different schedules than usual?
- Did their total work hours increase or decrease as compared to usual? How much?
- [If yes to either of the above] Do you think if any of this affected their weekly income?

Final Statements

I've asked you a lot of questions today, so now I want to give you an opportunity to tell me in your own words how you feel about the Ride Guarantee program?

Our research team is interested in knowing a few basic facts about the people we are interviewing; would you mind if I asked you a couple demographic questions?

What is your age?

What race/races do you identify as?

What is your gender?

What would you say your household income level is?

Is there anything else you'd like to add to what you already said? Anything more you think I should know?

Do you have any questions for me?

Again, thank you for your time. The information you provided us today will help us in learning how to best improve the program.

APPENDIX IV: PRIVACY AND CONSENT TERMS

These were provided to the interviewees when they scheduled the interviews. Also read to the interviewee before asking the questions.

The following statements describe the research in which you are being asked to participate and tells you your specific rights and our responsibilities:

- You are being invited to participate in a research interview as part of the Ride Guarantee program being provided by your employer in collaboration with the City of South Bend.
- Your interview will also be used as part of the Employment and Transportation Study, a research study conducted by Karina McDonald-Lopez of the University of Michigan. The study is being funded by the National Science Foundation's Graduate Research Fellowship.
- Your interview will also be used a research study conducted by researchers at the University of Notre Dame, and being funded by Delivery Associates.
- The purpose of this research study is to understand transportation insecurity affects employment outcomes and how programs such as Ride Guarantee can help address these transportation barriers in a way that benefits both employers and employees. We are also interested in understanding the program usage and any problems you are facing in using the program.
- Participation in this study is completely voluntary.
- If you participate, you will be interviewed. You will be compensated with $50 visa gift card.
- You may choose not to answer any question and you can stop your participation at any time; all you have to do is say, "I want to stop."
- Your participation in the study will last about ninety minutes.
- If you participate, you agree to the audio taping of the interview. The recording of your interview will be kept in secured files on secure computer space. Only authorized project staff are allowed access to recorded interviews. The content of the interviews will be typed into a word processing file with only the identification code, and not your name, used in the file. Any identifying information will be removed. Once the project is complete, all recordings will be destroyed.
- Neither your participation in the program, nor your job will be affected in any way by participating or choosing not to participate in this study.
- The researchers have taken steps to minimize the risks of this study. Even so, you may still experience some risks related to your participation, even when the researcher is careful to avoid them. These risks may include providing information that you consider to be personal and sensitive.
- Your participation in this study will help us understand the transportation and employment issues faced by people like you so that programs, policies, and services can be better designed to address such needs.
- The researcher could contact you in the future regarding your participation in this study or to see if you would like to participate in further studies.

The researcher will take the following steps to protect your privacy:

- Your answers will be kept private. The researchers plan to publish the results of this study. When the researcher presents information from the surveys in reports, paper, or presentations, it will usually be in an aggregate form, but will never identify you. If the researcher uses quotations from this interview or describe your situation, they will use a pseudonym (a different name), and other potentially identifying information about you will be changed in order to protect your privacy.

- Your name and contact information will be kept in secure files separate from the responses you provide in this interview. The only way to connect your name with your interview is an identification code, which by itself will not identify you. Only the researcher will have access to your name and your identification code during the data collection period. After all of the interviews are completed, only the researcher will have access to the identification code.
- You agree to allow the researcher to keep the data you provide for use in data analysis. The researcher may keep the data after the study ends. The data will be kept in secure, password protected files with your name and other identifying information removed.

If you have questions about the Transportation and Employment study, you may contact the study director at lopezkar@umich.edu.

As part of their review, the University of Michigan Institutional Review Board Health Sciences and Behavioral Sciences and University of Notre Dame Institutional Review Board have determined that this study is no more than minimal risk and exempt from on-going IRB oversight.

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