DDOT 2023 Title VI
Non-Rider Survey Report

DDOT

April 6, 2023

AECOM

Delivering a better world

Prepared for:

DDOT

Prepared by:

AECOM
4219 Woodward Avenue
Detroit, MI 48201
aecom.com

Table of Contents

Figures

Tables

1. Introduction

This report includes the results of the 2023 Detroit Department of Transportation (DDOT) Title VI Non-Rider Survey. AECOM developed and analyzed a 13-question self-administered survey that was fielded from February 14, 2023, through February 23, 2023. A total of 284 surveys were collected.

The goal of this survey was to gather data from non-riders to understand non-rider perceptions of bus service, potential use of DDOT service, and demographics. This report includes percentage responses for each question based on all valid surveys collected. A summary of findings is provided in Section 3, with supplemental figures included in Appendix A.

2. Methodology

A summary of the target audience and survey details are below. This project was undisguised—in other words, it was disclosed to participants that DDOT was sponsoring the research.

The Sampling Plan

Members of the Data Collection Team collected surveys at the following six locations: Downtown, Livernois Avenue, Vernor Avenue, Hamtramck (Jos Campau Avenue), Wayne State University, and Eastern Market. These locations were chosen because they are areas with relatively high pedestrian traffic and they provide a wide geographical range within Detroit. Dates and times the data collectors were at each location are provided in Table 1. A goal of 300-500 surveys was set. All respondents were 12 or older and screened to ensure they had not ridden a DDOT bus in the past 12 months. Staff walked around the location areas, greeting potential respondents, explaining the survey purpose, and asking for participation. An incentive was offered for participation in the survey. The detailed process for administering the survey can be found in Appendix B.

Table 1: Sampling Plan

Location	Date	Scheduled Collection Time	Target	Surveys Collected
Wayne State	2/14/2023	10am- 3pm	50	39
Vernor Avenue	2/15/2023	9am - 12pm	50	22
Livernois Avenue	2/15/2023	12:30 - 3pm	50	23
Hamtramck (Joe Campau Avenue)	2/16/2023	9am - 3pm	50	49
Downtown	2/17/2023	9am - 3pm	50	52
Eastern Market	2/18/2023	9am - 3pm	50	59
Downtown	2/23/2023	9am - 3pm	(Make-up day)	40
		Total	**300**	**284**

Survey Instrument Preparation

A survey instrument was provided to AECOM by DDOT staff. The product consisted of 13 questions. The instrument was a paper survey available in English, Spanish, and Arabic. Questions were located on the front of a single page. Providing contact information at the end of the survey was optional, allowing respondents to enter a drawing for a gift card. Reference Appendix C to see the full survey.

Training and Data Collection Process

Prior to data collection, a training session was held with all data collection staff. Two surveyors were trained for the data collection responsibilities. The training covered the purpose of the survey, survey goals, the process for data collection, incentives, and overall protocol. Once trained, the data collection team was deployed. Team members were assigned specific daily quotas for each location during different times of the day and days of the week (see Table 1 above for detailed assignments).

The survey was administered during weekdays (Monday-Friday) and on weekends (Saturday-Sunday). The two surveyors worked together as one team. The surveyors handed out the survey instrument to be self-administered, and once the surveys were complete, the instrument was collected. Members of the data collection team wore a DDOT badge to identify themselves. See the Data Collection Plan in Appendix B for additional details about the training and data collection process. The surveys were made available in Spanish and Arabic to ensure that the survey process was inclusive.

Survey Analysis

Please note that conventional rounding rules have been applied to the percentages in the report tables. As a result, the percentages below may not always add up to 100 percent. For questions where only one option could be selected and for questions where multiple options could be selected, percentage breakdowns represent the percentage of respondents out of the group of respondents that responded to the question (with blanks omitted). For questions where multiple options can be selected, the percentages will not always add up to 100 percent. Respondent rates are indicated on each question.

3. Summary Findings

The findings are summarized in two sections: (1) Characteristics of Non-Riders and (2) Opinions on Public Transit. Additional information can be found in Appendix A Results.

Characteristics of Non-Riders

Key findings:

City of Residence: Most respondents live in the City of Detroit (59%), followed by the City of Hamtramck (11%) and other jurisdictions within Southeast Michigan (28%).

Technology: Most respondents have a smartphone with data (98%).

Income: The greatest share of respondents falls in the $32,498 to $59,234 income bracket (25%), closely followed by the $15,000 to $32,498 income bracket (24%) and the over $75,000 income bracket (24%). Income levels for respondents of this non-rider survey are significantly higher overall than income levels from the Onboard Survey responses.

Employment and Education: Three percent of respondents are unemployed. This is relatively low compared with Onboard Survey respondents who are unemployed (15%). Most respondents work full-time (57%).

Demographics: Most respondents are Black (82%). Twenty-two percent of respondents are White, and another 22% are Asian. The greatest share of residents were 26 to 41 years old (33%), followed by 42 to 57 (31%) and 58 and older (23%). 50% of respondents were male, and 50% were female.

Vulnerable groups: Four percent of respondents speak English less than very well, while 11% of respondents do not primarily speak English at home (6% predominantly speak Spanish, 5% Arabic).

Table 2: Summary of Non-rider Characteristics

Question	Response Rate	Results (Percent of Respondents who selected option)	
What is your gender?	91%	Male	50%
		Female	50%
How old are you?	96%	12 to 17	1%
		18 to 25	11%
		26 to 41	33%
		42 to 57	31%
		58 and older	23%
What is your total household income?	87%	Under $15,000	19%
		$15,000 to $32,498	24%
		$32,498 to $59,234	25%
		$59,234 to $65,000	5%
		$65,000 to $75,000	2%
		Over $75,000	24%

Question	Response Rate	Results (Percent of Respondents who selected option)	
*What is your race?** *Respondents could select multiple options	91%	Black/African American	82%
		White/Caucasian	22%
		Asian	22%
		Hispanic or Latino	8%
		Native Hawaiian/Pacific Islander	3%
		Native American/Alaska Native	3%
*What is the primary language spoken in your home?** *Respondents could select multiple options	96%	English	96%
		Spanish	6%
		Arabic	5%
Do you speak English?	96%	Very well	96%
		Less than well	3%
		Not at all	1%
*What is your employment status?** *Respondents could select multiple options	92%	Full time	57%
		Retired	24%
		Part time	12%
		Student	10%
		Homemaker	4%
		Unemployed	3%
What city do you live in?	69%	Detroit	59%
		Other: Southeast Michigan	28%
		Hamtramck	11%
		Other: Out of State	2%
Do you have a smartphone with data?	98%	Yes	97%
		No	3%

Opinions on Public Transit

Key Findings:

Support and usage: Sixty-seven percent of respondents support public transit. Fifty-eight percent of respondents have used DDOT service before.

Barriers to using DDOT: Most respondents list safety concerns on the bus as a barrier keeping them from using DDOT service (75%). This is followed by cleanliness (44%), time/convenience (42%), and safety concerns outside of the bus (40%).

Utilizing DDOT service: Most respondents list shopping/errands (65%) as their most likely use for DDOT if they were to use the service. This is followed by commuting to work (57%) and trips to the doctor/dentist (48%).

Table 3: Summary of Non-Rider Opinions on Public Transit

Question	Response Rate	Results (Percent of respondents who selected option)	
Do you support public transit?	96%	Yes	67%
		No	33%
Have you ever used DDOT service?	96%	Yes	58%
		No	43%
If you were to utilize DDOT Service, what would you mainly use it for? *Respondents could select multiple options	67%	Shopping/Errands	65%
		Commuting to Work	57%
		Doctor/Dentist	48%
		Commuting to School	33%
		Recreation/Entertainment	33%
		Other	1%
What barriers keep you from using DDOT service? *Respondents could select multiple options	93%	Safety concerns on the bus	75%
		Cleanliness	44%
		Time/Convenience	42%
		Safety concerns outside of the bus	40%
		Lack of knowledge about the system	20%
		The bus does not run close to my destinations	17%
		Mobility Disability	13%
		The bus does not run close to me	8%
		Other	0%

4. Cross Tabulation Analysis

Several cross tabulation analyses were completed to better understand the survey results. This analysis focused on better understanding the demographic information that affects what riders consider to be barriers to using DDOT Service and how they would potentially use DDOT service. Notable results are summarized below. The number of respondents by category are included in parenthesis in the table headings when response rates for those categories are low. Percentages represent the percent of respondents that chose each option within the given category.

Barriers to using DDOT Service

The question "*What barriers keep respondents from using DDOT service?*" was cross tabulated with a variety of variables. These variables include gender, household income, age, and whether a respondent has used DDOT before.

Gender: On average, female respondents were more concerned about safety outside of the bus (40% of females were concerned) compared with male respondents (30% of male respondents were concerned). Conversely Female respondents were less concerned about safety on the bus (66%) compared with male respondents (74%). Female respondents were also more concerned with cleanliness (44%) than male respondents (34%) (Table 4).

Table 4: Barriers that keep respondents from using DDOT service by gender

	Are you:	
What barriers keep you from using DDOT service*	**Female**	**Male**
Safety concerns on the bus	66%	74%
Cleanliness	44%	34%
Time/Convenience	40%	32%
Safety concerns outside of the bus	40%	30%
Lack of knowledge about the system	18%	20%
The bus does not run close to my destinations	14%	12%
Mobility disability	11%	9%
the bus does not run close to me	6%	8%
Grand Total	240%	219%
Response Rate: 86% *Respondents could select multiple options*		

Income: High income respondents selected more barriers that kept them from using DDOT service compared with lower income residents. A much larger portion of high-income residents listed cleanliness as a barrier keeping them from using DDOT service, compared with lower income residents. Concerns about safety outside of the bus also increased as income increased. Conversely, safety concerns about safety on the bus decreased as income increased (Table 5).

Table 5: Barriers that keep respondents from using DDOT service by household income

What barriers keep you from using DDOT service*	Total Household Income (number of respondents)					
	Under $15,000 (60)	$15,000 - $32,498 (46)	$32,498 - $59,234 (60)	$59,234 - $65,000 (63)	$65,000 - $75,000 (13)	Over $75,000 (6)
Safety concerns on the bus	87%	65%	63%	62%	46%	67%
Cleanliness	15%	17%	62%	63%	85%	83%
Time/convenience	13%	24%	47%	71%	54%	67%
Safety concerns outside of the bus	10%	17%	57%	63%	62%	67%
Lack of knowledge about the system	10%	24%	25%	19%	38%	17%
The bus does not run close to my destinations	2%	0%	20%	35%	38%	67%
Mobility disability	3%	7%	15%	21%	31%	33%
The bus does not run close to me	3%	0%	12%	13%	23%	0%
Grand Total	143%	154%	300%	348%	377%	400%

Response Rate: 83%
*Respondents could select multiple options

Age: Concerns about safety outside of the bus decrease as age increases. Conversely safety concerns on the bus increase as age increases, with exception of the 58+ age cohort (Table 6).

Table 6: Barriers that keep respondents from using DDOT service by age

What barriers keep you from using DDOT service*	Age (number of respondents)				
	12-17 (3)	18-25 (31)	26-41 (91)	42-57 (85)	58 and older (64)
Safety concerns on the bus	67%	71%	79%	84%	44%
Cleanliness	33%	52%	45%	45%	30%
Time/convenience	33%	48%	46%	39%	30%
Safety concerns outside of the bus	67%	48%	43%	40%	25%
Lack of knowledge about the system	33%	32%	8%	18%	28%
The bus does not run close to my destinations	0%	26%	13%	18%	16%
Mobility disability	0%	19%	13%	13%	8%
The bus does not run close to me	33%	10%	5%	11%	6%
Grand Total	267%	306%	253%	266%	186%

Respondent Rate: 92%
*Respondents could select multiple options

Previous use of DDOT: Those who have used DDOT before selected more barriers to using DDOT service than those who haven't used DDOT before. Those who have used DDOT more heavily selected each option as a barrier keeping them from using DDOT service, besides "lack of knowledge about the system," compared with those who haven't used DDOT before (Table 7).

Table 7: Barriers by DDOT Service Use

What barriers keep you from using DDOT service*	Have you used DDOT service before (number of respondents)	
	No (114)	Yes (160)
Safety concerns on the bus	69%	73%
Cleanliness	11%	64%
Time/convenience	13%	59%
Safety concerns outside of the bus	8%	60%
Lack of knowledge about the system	25%	14%
The bus does not run close to my destinations	4%	26%
Mobility disability	4%	18%
The bus does not run close to me	4%	11%
Grand Total	137%	325%

Response Rate: 92%
*Respondents could select multiple options

Potential Use of DDOT Service

The question "*If you were to utilize DDOT Service, what would you mainly use it for?*" was cross tabulated with various variables including support of public transit, gender, and age.

Support of public transit: Many of the respondents who do not support public transit did not select an option for how they would utilize DDOT service. Shopping/errands was the top option selected by those who support public transit. Shopping/errands and commuting to work were the top options selected by those who do support public transit (Table 8).

Table 8: If you were to utilize DDOT Service, what would you mainly use it for by Public Transit Support

How respondent would utilize DDOT Service*	Do you support public transit? (number of respondents)	
	No (90)	Yes (419)
Shopping/Errands	18%	59%
Commuting to work	0%	59%
Doctor/Dentist	11%	45%
Recreation/Entertainment	7%	32%
Commuting to school	1%	34%
Grand Total	37%	228%

Respondent Rate: 68%
*Respondents could select multiple options

Gender: Females are more likely than males to consider utilizing DDOT Service across all categories. Females are much more likely to use DDOT for Shopping/Errands (52% of females selected this option) compared with males (33%) (Table 9).

Table 9: If you were to utilize DDOT Service, what would you mainly use it for by gender

How respondent would utilize DDOT Service*	Gender (number of respondents)	
	Female (131)	Male (129)
Shopping/Errands	52%	33%
Commuting to work	38%	33%
Doctor/Dentist	36%	22%
Commuting to school	24%	16%
Recreation/Entertainment	21%	18%
Grand Total	171%	122%
Respondent Rate: 60% *Respondents could select multiple options		

Age: The primary way respondents would utilize DDOT service would be for commuting to school for the 12 to 17 age cohort (67% of respondents this age would use DDOT to commute to school), for the 18 to 25 cohort (61%) and for the 26 to 41 cohort (51%). Respondents 42 to 57 were most likely to use DDOT to commute to work (44%). Respondents 58 and older were most likely to use DDOT for shopping/errands (41%) (Table 10).

Table 10: If you were to utilize DDOT Service, what would you mainly use it for by age

How respondent would utilize DDOT Service*	How old are you? (number of respondents)				
	12 to 17 (3)	18 to 25 (31)	26 to 41 (91)	42 to 57 (85)	58 and older (64)
Commuting to work	33%	45%	48%	44%	39%
Commuting to school	67%	61%	51%	32%	19%
Shopping/Errands	33%	32%	31%	32%	41%
Doctor/Dentist	0%	10%	30%	25%	20%
Recreation/Entertainment	33%	42%	26%	19%	13%
Grand Total	167%	190%	186%	151%	131%
Respondent Rate: 66% *Respondents could select multiple options					

# Public Transit Support by DDOT Service Use

The question "*Do you support public transit?*" was cross tabulated with "*Have you ever used DDOT Service?*" Fifty-one percent of respondents have used DDOT service and support public transit. Twenty-five percent of respondents have not used DDOT service and do not support public transit (Table 11).

Table 11: Public transit support by public transit usage

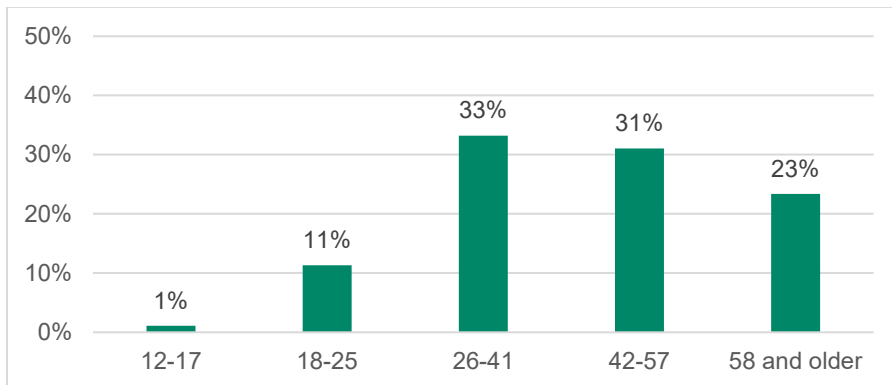| Have you ever used DDOT service?	Do you support public transit?		
	Yes	No	Grand Total
Yes	51%	8%	59%
No	17%	25%	41%
Grand Total	67%	33%	100%
Respondent Rate: 96%			

Appendix A Results

Figure 1: To which gender do you most identify?
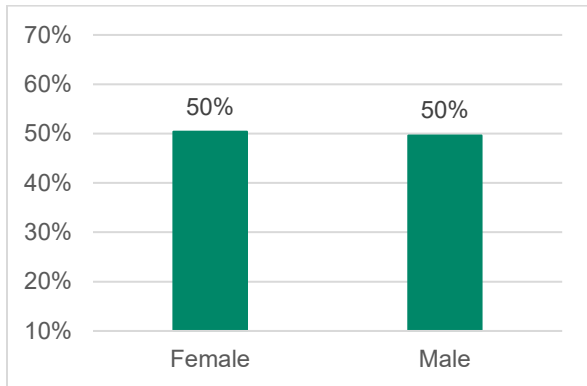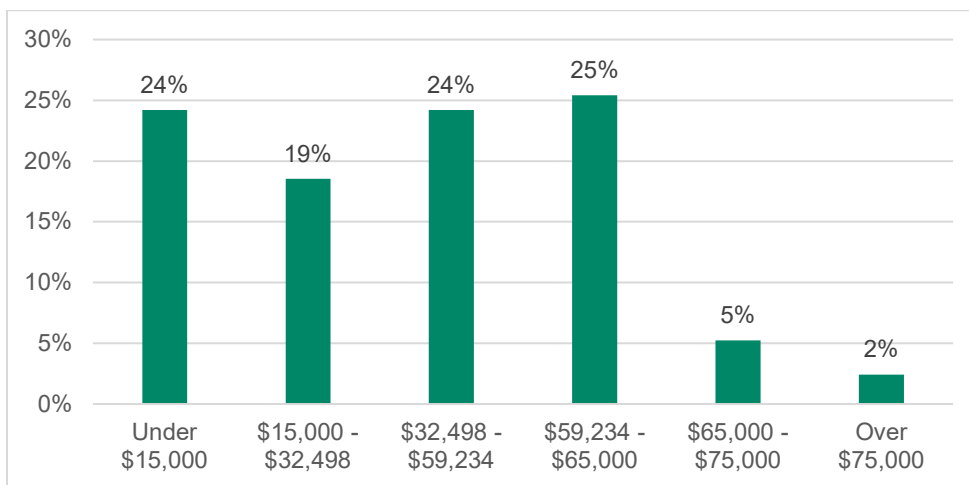

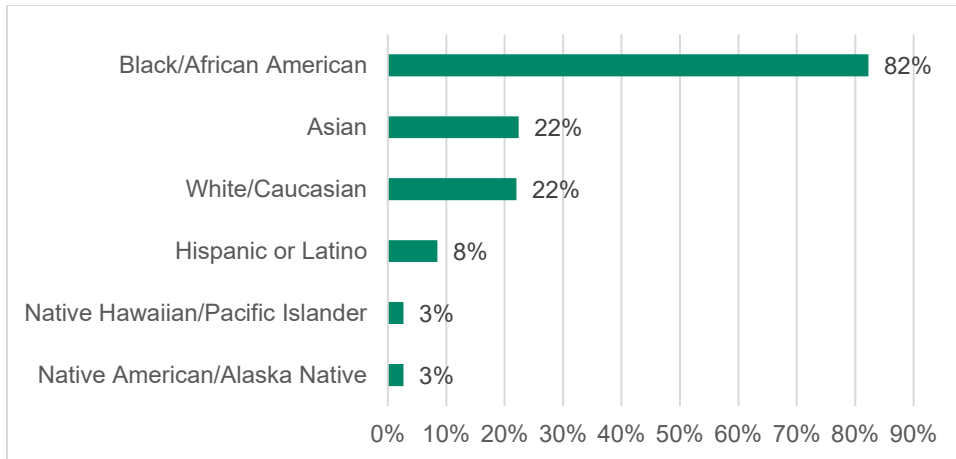*Response Rate: 91%*

Figure 2: How old are you?

Response Rate: 96%

Figure 3: What is your total household income?
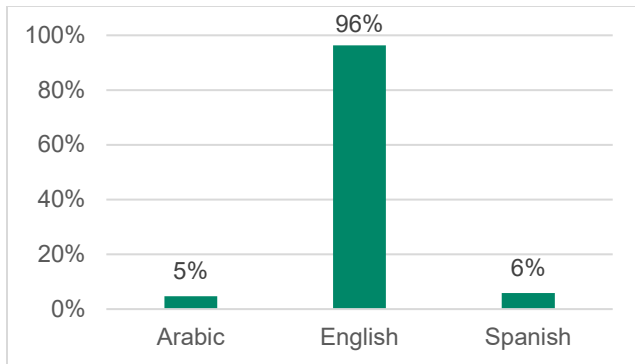

Response Rate: 87%

Figure 4: What is your race?*

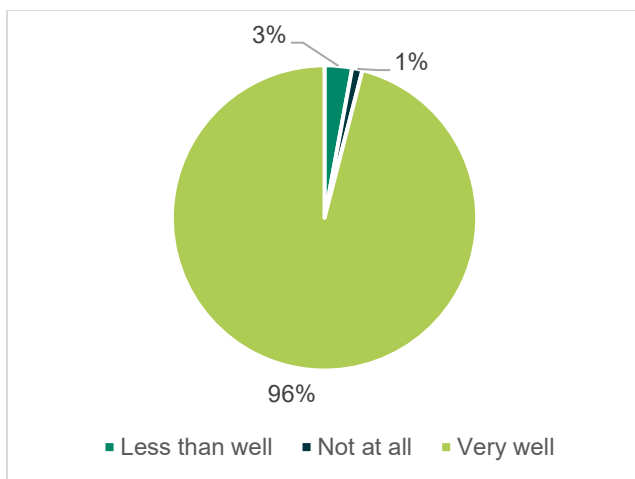

Response Rate: 91%
*Respondents could select multiple options

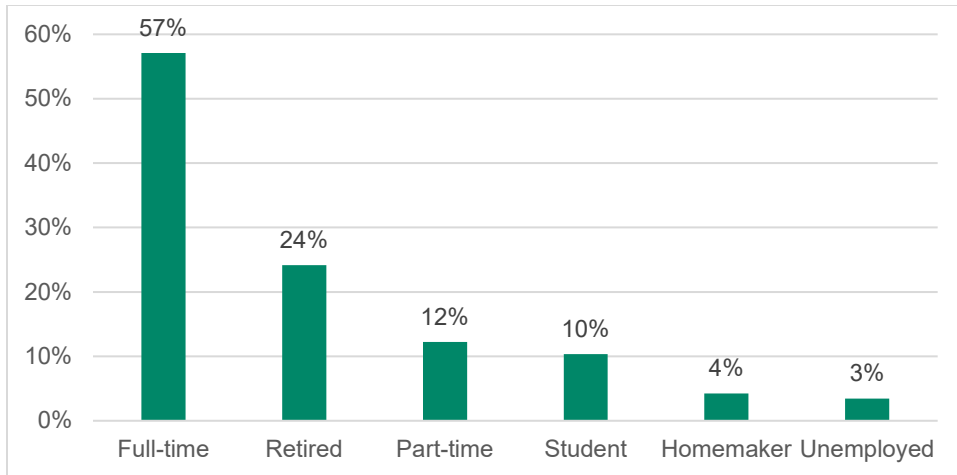## Figure 5: What is the primary language spoken in your home?*

Response Rate: 96%
*Respondents could select multiple options

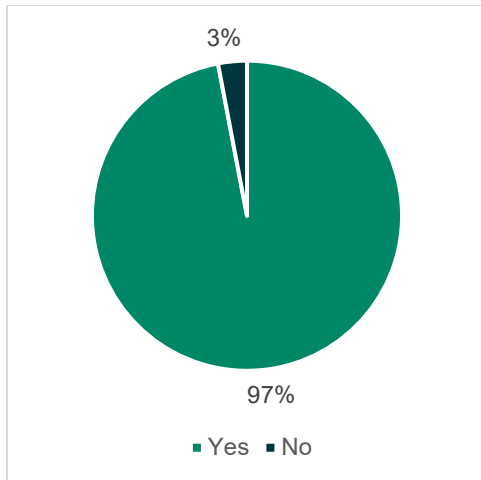## Figure 6: Do you speak English?

Response Rate: 96%

Figure 7: What is your employment status?*
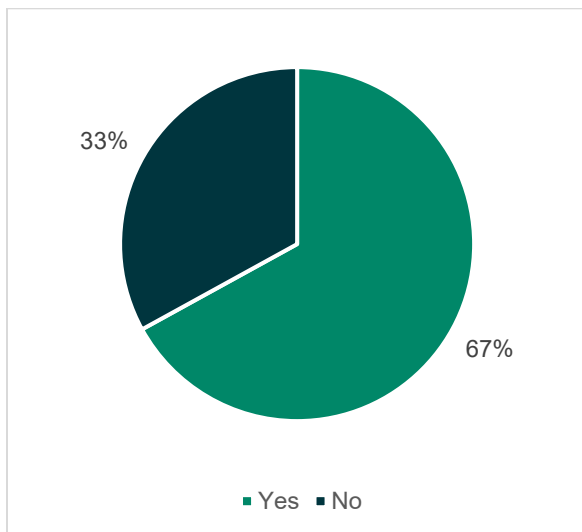

Response Rate: 98%
*Respondents could select multiple options
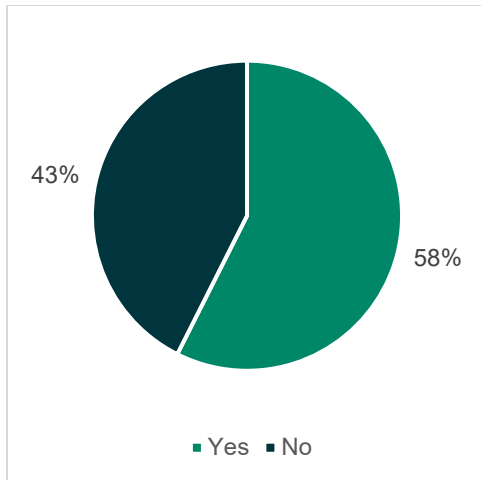
Figure 8: Do you have a smart phone with data?

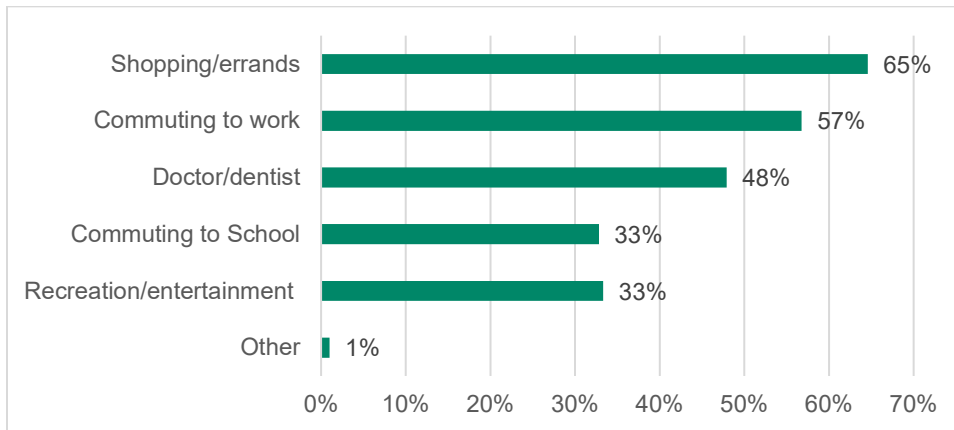*Response Rate: 97%*

Figure 9: Do you support public transit?

Response Rate: 96%

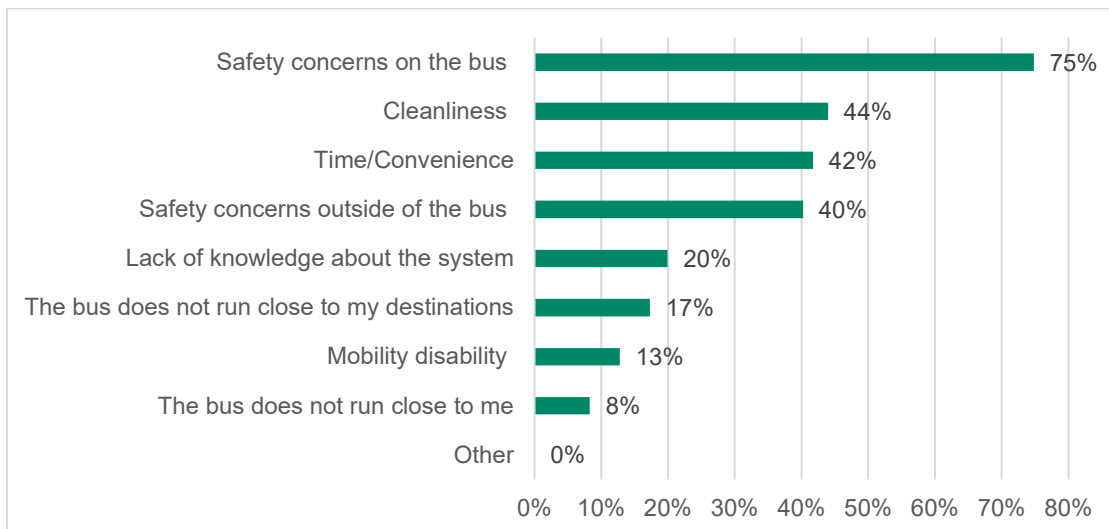**Figure 10: Have you ever used DDOT service?**

Response Rate: 96%

Figure 11: If you were to utilize DDOT service, what would you mainly use it for?*

Response Rate: 67%
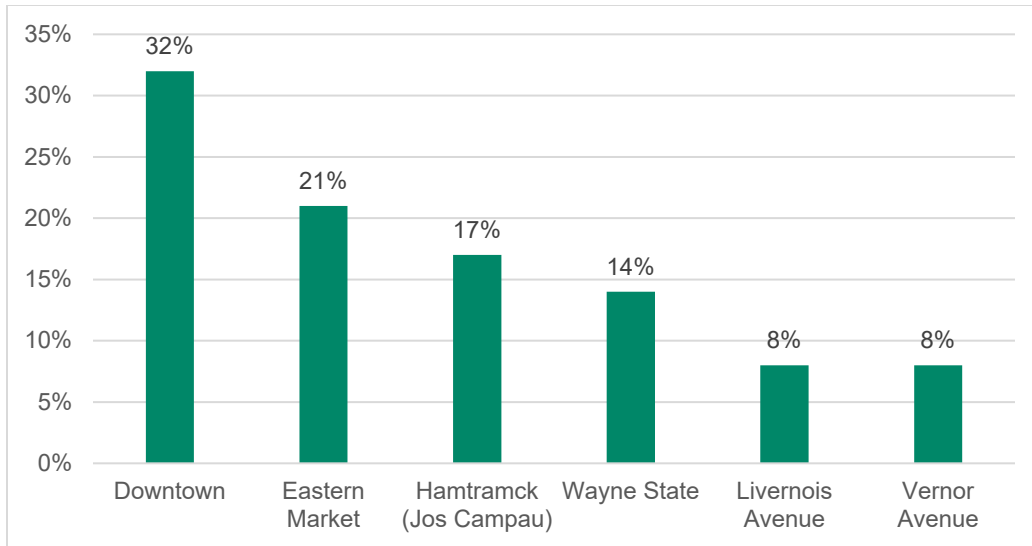*Respondents could select multiple options

Figure 12: What barriers keep you from using DDOT service?*
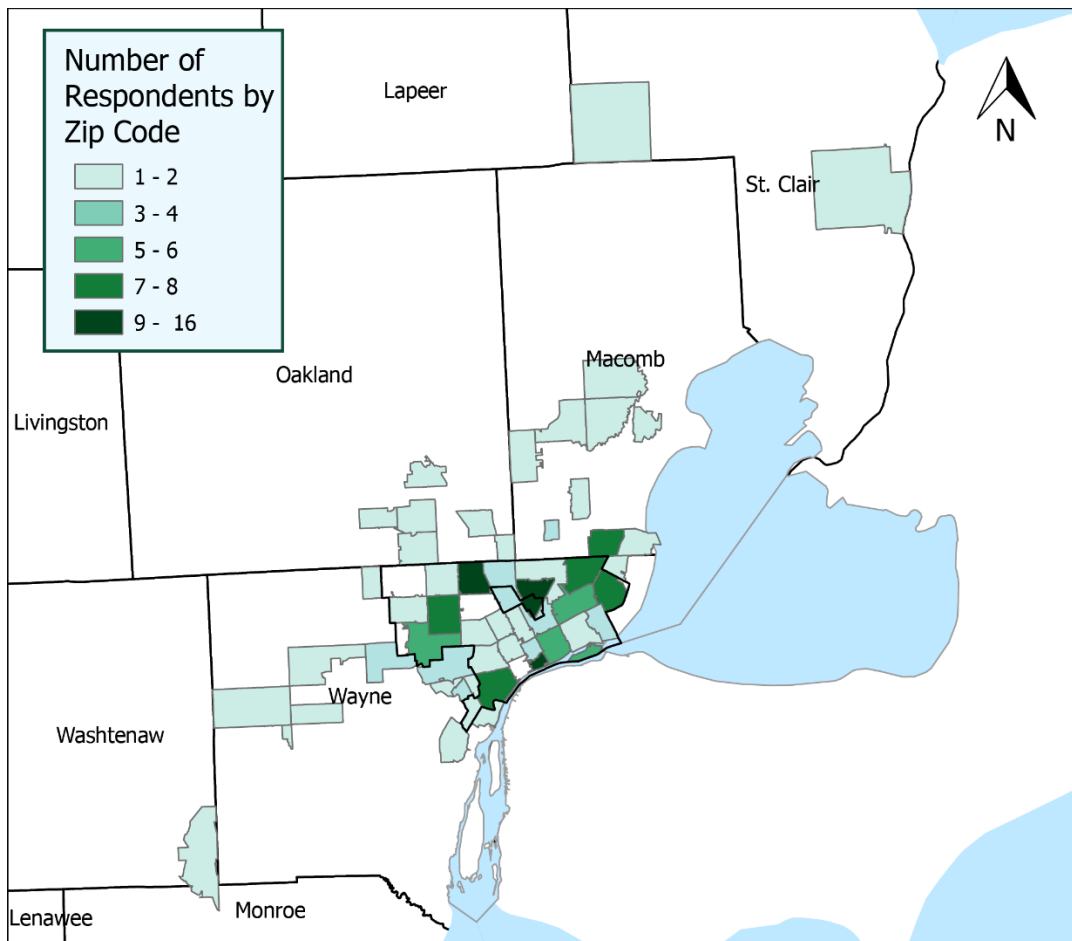

Response Rate: 93%
*Respondents could select multiple options

Figure 13: Location where Survey was collected

Response Rate: 100%

Figure 14: Number of Respondents by Zip Code

Response Rate: 62%

Appendix B Data Collection Plan

Data Collection Plan

2023 DDOT NON-RIDER SURVEY
DATA COLLECTION PLAN

Target Audience: Non-DDOT Riders

Total Number of Completed Surveys: 300-500

This document outlines the data collection plan and procedures for the 2023 DDOT Non-Rider Survey. The goal of the project is to gather data from non-riders to gauge opinions about use of public transit, perceptions of DDOT bus service, and potential use of DDOT service. The survey will be administered as in intercept—staff will greet potential respondents, explain the survey purpose, and ask them to participate. Details include:

- Surveys will be gathered at the following six locations: Downtown, Livernois Ave., Vernor Ave., Jos Campau Ave., Wayne State University, and Eastern Market. If permission is required to survey in any location, it will be obtained in advance of survey deployment.
- All respondents will be screened to ensure that they have not ridden a DDOT bus in the past 12 months.
- All respondents will be 12 or older.
- Surveys will be self-administered unless a respondent needs assistance.
- An incentive will be offered for participation in the survey.
- Spanish and Arabic surveys will be available.
- Surveys will be administered over a two-week period in February 2023.

Survey Team

The survey team will consist of the Project Manager (AECOM) and the Data Collection Team (Green Arrow). The role of the Project Manager will be to respond to any direct questions from staff in the field. The role of the Data Collection Team will be to administer all surveys to the general public. Staff will provide the DDOT customer service number if a non-rider has additional comments to share.

Members of the Data Collection Team will all wear a DDOT badge to identify themselves. Data collection will occur in teams of two.

Training Briefing

The Project Manager will briefly train the Data Collection Team members. The purpose of the training will be to brief staff on the purpose of the project, review the data collection process, review safety protocols, and respond to any questions.

Data Collection Process

Members of the Data Collection Team will be stationed at the locations noted above during weekdays (Monday-Friday) and on weekends (Saturday-Sunday) during February 2023. A goal of 300-500 surveys is desired.

The process for administering the survey is as follows:

1. A staff member of the Data Collection team will randomly choose potential respondents at their location. Depending upon the potential pool of participants, every 5th or 10th individual will be approached.

2. The individual approached will be told the purpose of the survey and asked specifically if they have used DDOT service in the past 12 months. If they <u>have,</u> they will be thanked, and the staff member will move on to the next potential participant. If they <u>have not</u>, they will be asked to participate, and the incentive will be mentioned.

3. Only one individual from a group of potential participants will be approached. So, for example, if a family of three people is walking in Fairlane Mall, only one survey response will be gathered.

4. Staff hands out survey instrument on a clipboard with a pen to the respondent.

5. Staff politely asks non riders to fill out the survey.

6. Staff assists anyone having problems reading/filling out the survey.

7. Staff gathers all surveys from non-riders and thanks them for participating.

8. Staff member approaches the next potential participant.

Appendix C Non-Rider Survey

Non-Rider Survey

DETROIT DEPARTMENT OF TRANSPORTATION
NON-RIDER SURVEY QUESTIONS

1. Are you:
☐ Male ☐ Female

2. How old are you?
☐ 12 – 17 ☐ 18 – 25 ☐ 26 – 41
☐ 42 – 57 ☐ 58 and older

3. What is your total household income?
☐ Under $15,000 ☐ $15,000 - $32,498
☐ $32,498 - $59,234 ☐ $59,234 -$65,000
☐ $65,000 -$75,000 ☐ Over $75,000

4. What is your race?
☐ Black/African American ☐ White/Caucasian
☐ Hispanic or Latino ☐ Asian
☐ Native Hawaiian/Pacific Islander
☐ Native American/Alaska Native
☐ Other (please describe): _____

5. What is the primary language spoken in your home?
☐ English ☐ Spanish ☐ Arabic ☐ Other: _____

6. Do you speak English?
☐ Very well ☐ Less than well ☐ Not at all

7. What is your employment status?
☐ Full time ☐ Part-time ☐ Student
☐ Retired ☐ Homemaker ☐Unemployed

8. Where do you live?
City: _____
Zip Code: _____

9. Do you have a smart phone with data?
☐ Yes ☐ No

10. Do you support public transit?
☐ Yes ☐ No

11. Have you ever used DDOT Service?
☐ Yes ☐ No

12. If you were to utilize DDOT Service, what would you mainly use it for?
☐ Commuting to work
☐ Commuting to school
☐ Shopping/Errands
☐ Doctor/Dentist
☐ Recreation/Entertainment
☐ Other: _____

13. What barriers keep you from using DDOT Service?
☐ Safety concerns outside of the bus
☐ Safety concerns on the bus
☐ Mobility disability
☐ Lack of knowledge about the system
☐ Cleanliness
☐ The bus does not run close to me
☐ The bus does not run close to my destinations
☐ Time/Convenience

14. Optional. Provide your contact information to be entered into a drawing for a $50 gift card.

Email: _____

Name: _____

For Office Use Only
Location: _____ Date: _____ Time: _____am/pm