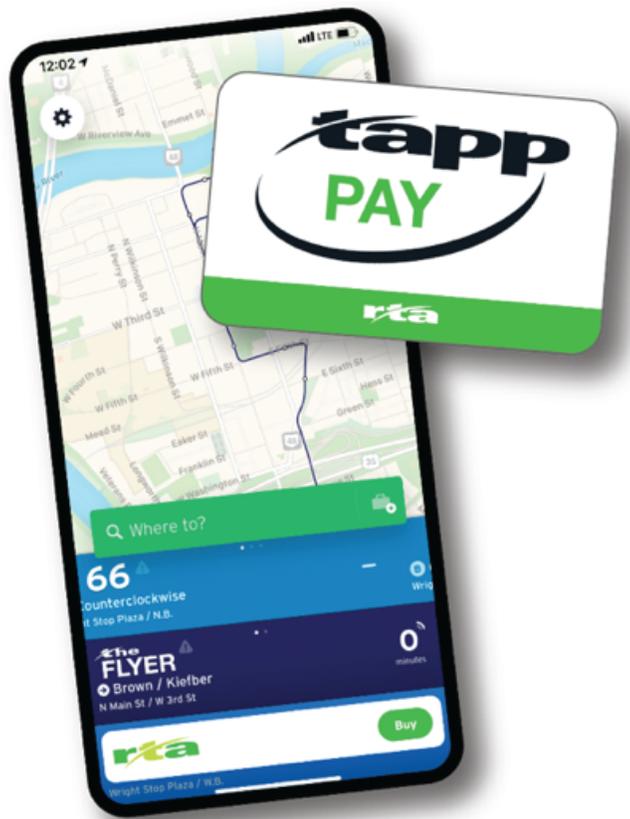


Greater Dayton Regional Transit Authority

# Title VI Fare Equity Analysis for New Payment System & Proposed Fare Changes

July 2021



# Executive Summary

The Greater Dayton Regional Transit Authority (RTA) located in Dayton, Ohio is the public transit agency that serves Montgomery County and western Greene County. RTA operates a fleet of 300 fixed route and paratransit vehicles. There are over 3,000 stops and over 25 routes throughout the region. Customers use RTA for more than 9 million passenger trips each year.

This report documents RTA's fare equity analysis of its proposed migration to a new integrated electronic fare payment system, called Tapp Pay, including related public engagement efforts. The purpose of the fare equity analysis is to determine, prior to implementing changes to certain fare system functions and structures, whether the planned changes will have a disparate impact on the basis of race, color, or national origin, or if low-income populations will bear a disproportionate burden as a result of these proposed changes.

The fare equity analysis involved a technical analysis using rider survey data and public input collected through our community engagement process. Public input collected at RTA's public hearing in April 2021 and meetings with our internal Customer Advocacy Group throughout the entire process helped RTA's decision making process in further refining the Tapp Pay payment system and timelines for the project.

RTA in order to provide high quality, accessible services to its customers, decided to replace its existing cash and magnetic ticket-based Automated Fare Collection system with a new fare payment system. The new payment system (Tapp Pay) is a closed loop, account-based ticketing system offered through a mobile app via the Transit app, and smartcards. The payments solution will be an integral part of a Mobility-as-a-Service (MaaS) platform planned for the Greater Dayton region, which may span a minimum of 9 counties. The new payments system is available on both fixed route and paratransit services.

Key goals for the new payment system include (1) providing an open and nonproprietary architecture; (2) enhancing ease of use for customer convenience through universal design, ensuring all customers have the ability to access; (3) increase operational efficiencies; (4) provide a seamless integration with Transit to allow fare purchasing in the app; (5) phasing out and ultimately eliminating all on vehicle cash transactions. The fare equity analysis was completed to ensure the RTA was in compliance with Title VI requirements and the requirements laid out in our Public Participation Plan.

From March 2018 to May 2021, RTA met at various times with the public, stakeholders and staff regarding the proposed Tapp Pay changes, project timelines and potential mitigations. The RTA reviewed customer service feedback as well. Participants/customers liked the benefits of fare capping, lost value protection, ability of stored value to roll over, and the reduced pricing for early adopters of the technology. In response to concerns over the timeline for removal of passes and cash from the vehicles, RTA addressed this by revising the timeline for removal of cash from the vehicles from June 2021 to November 2021 and developed a more phased approach to become a cashless on-board Tapp Pay system (Figure 1). In addition, RTA's system does allow for customers to remain anonymous and are not required to create a Tapp Pay account for their smartcard.

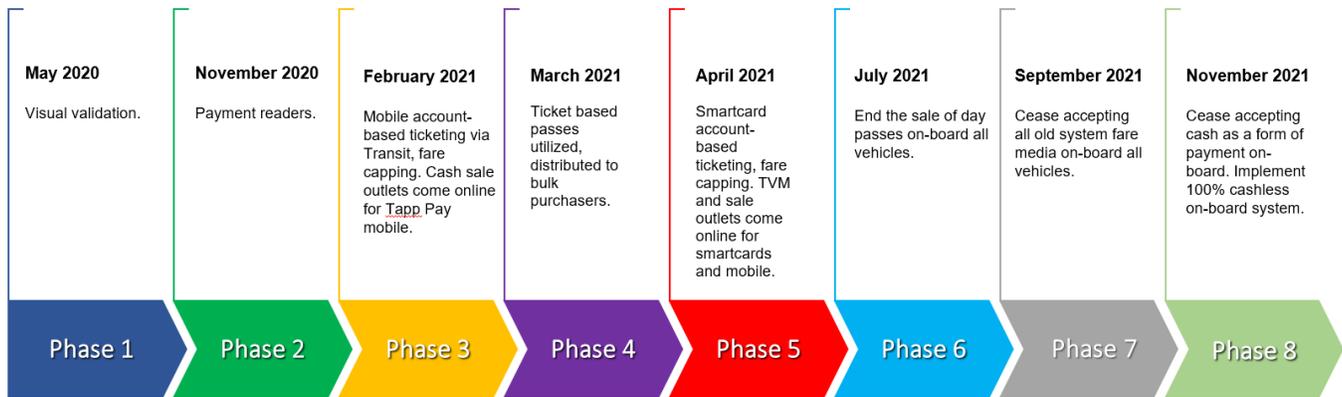


Figure 1 – RTA Proposed Tapp Pay Project and Fare Changes Schedule

Common concerns identified through public engagement were the cost/management of cards, gaps in access to the retail network, operating hours limiting access to cash conversion locations for customers and the security of personal information used in smartcard registration. None of these concerns rose to the level of opposition to the program and RTA included fare capping and the account based system has the ability to allow customer accounts to go negative to allow access to a cash conversion outlet or Transit Vending Machine to load more funds to accounts.

RTA's Leadership strongly believes that while challenges may exist with a cashless system, the overall system design will deliver increased access to all, including low-income, unbanked and underbanked customers. In addition, the system will provide agency benefits to include system cost reductions, a more streamlined operating process and greater customer and operational efficiencies.

RTA's equity analysis found that the following payment system and fare structure changes will have no disparate impact or disproportionate burden, and were not identified as high concerns through the public input process:

- Use of Cash Conversion Retail Outlets
- Fare Capping Available on New Payment System
- Elimination of the 7-Day Passes
- Elimination of the Red/Gray Student Passes

Based on technical analysis, the following changes may result in potential disparate impacts on minority populations or disproportionate burdens on low-income populations:

- Automatic reload option for smartcard using a credit/debit card (potential disparate benefit)
- Elimination of on-board cash as form of fare payment
- \$3 minimum load requirement for smartcard, currently provided as full value to account (potential disparate benefit)
- Ability for accounts to go negative, giving customers the ability to access retail locations to load additional funds to their accounts (potential disparate benefit)

And through the public engagement process one issue in particular was raised that was not identified in the technical analysis:

- Barriers to smartcard registration, including concern about providing personal information and the requirement to provide an email address when registering the smartcard.

RTA staff recommends continuing several mitigation measures to address these findings:

- Continuing reduced (promotional) costs for daily and monthly fare cap rates throughout 2021.
- Continuing to add more locations to the retail network, specifically in minority and low-income neighborhoods.
- Allow customer accounts to go negative in order to access cash conversion locations (already in-progress).
- Allow customers who are unaware that cash is not an acceptable form on payment on-board the vehicle, to board mid-trip and disembark at transit centers to access the payment system for further travel.
- Mail all active Paratransit eligible customers a Tapp Pay smartcard and create promotion to offer credits upon acknowledgement of receipt by customer (already executed, May 2021).
- Provide Paratransit customers upon service certification process access to the system including a smartcard.
- Provide more training for Community Based Organizations.

## Fare Equity Analysis on New Payment System & Proposed Fare Changes

### Introduction

A fare equity analysis of the new payment system, Tapp Pay and proposed fare changes was completed using survey results from a statistically valid 2021 Title VI rider intercept survey conducted by RTA. The fare equity analysis was performed in accordance with the requirements of the Federal Transit Administration's Circular 4702.1B, Title VI Requirements and Guidelines for Federal Transit Administration Recipients and RTA's 2019 Title VI Program. The purpose of the fare equity analysis is to determine, prior to implementing changes to the fare system, whether the planned changes will have a disparate impact on the basis of race, color, or national origin, or if low-income populations will bear a disproportionate impact burden of the changes.

### Background

RTA's goals in transitioning to the Tapp Pay system include offering customers a better value, fast, convenient, and secure approach to paying their fares and to increase operational efficiencies. Early in the Tapp Pay planning process (March 2018), RTA utilized a contractor to conduct a survey to obtain feedback from RTA stakeholders from various departments and a series of telephone interviews were conducted. These surveys provided a high-level understanding of how the agency currently meets the mobility needs of its customers, the state of the existing fare collection system and any of its limitations, and the prevailing desires for the future integrated payments system in order to meet the growing mobility needs.

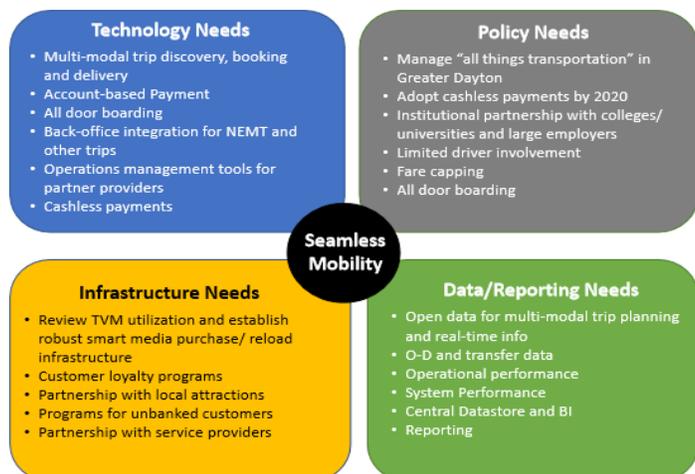


Figure 2

Based on interview discussions, the contractor summarized high-level, agency wide mobility and payments system needs under four functional areas: 1) Technology, 2) Policy, 3) Infrastructure and 4) Data/Reporting. Figure 2 provides a summary of these needs.

Figure 3 outlines the draft Tapp Pay policy areas recommended in the preliminary analysis. The initial findings provided content for early community engagement efforts regarding Tapp Pay in 2019 and helped frame issues for discussion in this formal Title VI analysis.

Policy Area	Proposed Change
Cashless Payments	Eliminate on-board fare box. Increase cashless options for customers. Increase sales outlets.
Partnerships	Work with universities, non-profits, government agencies for pass and fare product management to integrate payment systems.
Fair Pricing	Implement fare capping. Reduced pricing for new platform users. Simplify fare structure.
Manage Fare Distribution	Explore RTA as the mobility manager for the region to streamline the payment process and collection of revenue.

Figure 3 - Draft Tapp Pay Policies/Procedures Analyzed in Preliminary Analysis (March 2018)

**Early Mitigations**

Per the guidelines in the FTA Title VI circular, findings of disparate impact or disproportionate burden call for steps to avoid, minimize, or mitigate impacts where practicable. Thus, preparing for the transition from the existing fare payment system to the new Tapp Pay system the RTA identified the following findings and addressed each in the timeline of the project:

- Maintain on-board cash payments through November 1, 2021.
- Promotional credit for users creating accounts in the new system, and COVID-19 credits for vaccinated individuals.
- Exchanging at no cost, organizations who had in stock, old system fare passes with Tapp Pay passes.
- Allow accounts to go negative in order for customers to travel to a cash conversion location in order to load additional funds.

Based on a recent July 2021 report (Figure 4), old system pass usage began decreasing immediately after the introduction of smartcards to customers.

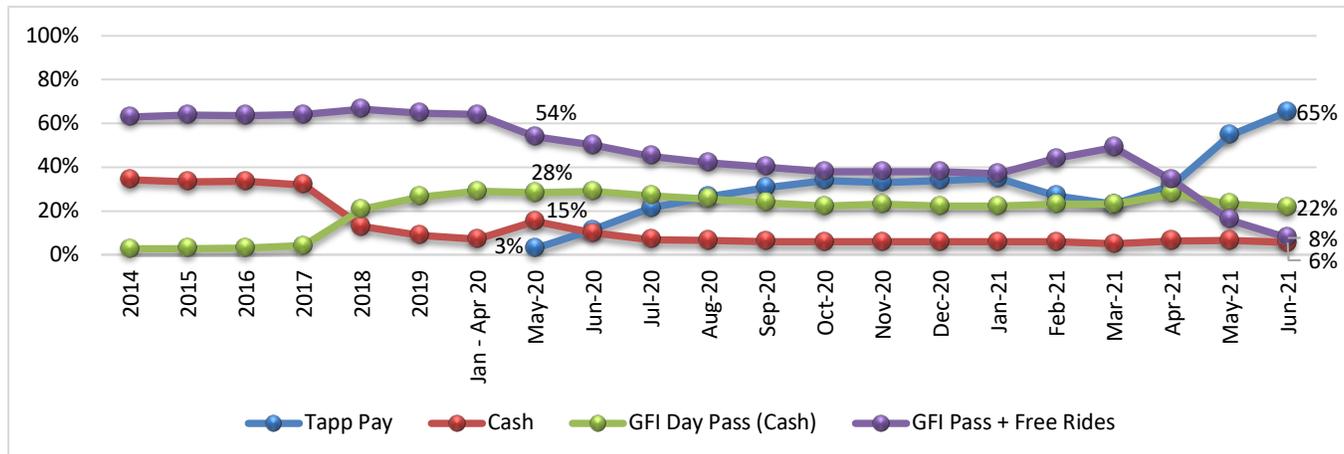


Figure 4 – Fare Payment Usage by Type

While RTA will phase out the use of old system passes in 2021, these options will remain available to customers with the initial implementation of the Tapp Pay system and will be gradually be phased out. Recent progress has been made in the migration of more customers to Tapp Pay, with only a 4% increase in those switching to cash payments with the July 1, 2021 removal of Day Pass sales from the fixed route buses (Figure 5), with July 7 yielding a 90% cashless payment usage rate.

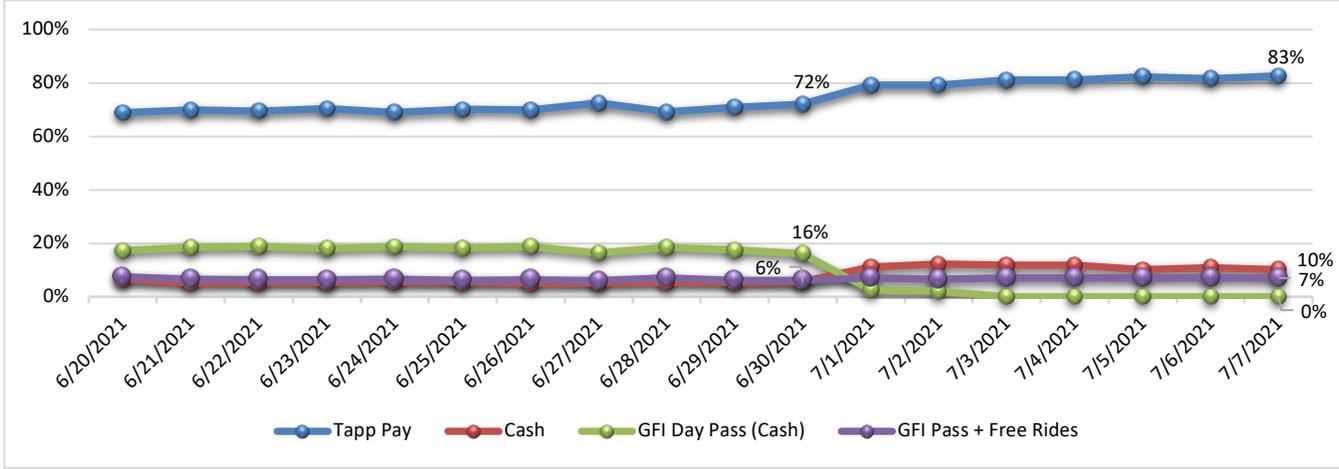


Figure 5 – Payments by Type

The next sections of the report describe RTA’s approach to the technical analysis and process to collect early input on how proposed fare payment system changes may affect minority and low income populations in the service area. In the following section the technical analysis results and public feedback are presented per our Title VI Program.

**Fare Equity Technical Analysis**

Per the RTA’s policy on Major Service Change and Fare Equity Analysis, Customer & Business Development Policy 6, for proposed changes that would increase or decrease fares on the entire system, or on any mode, or by fare payment type or fare media, the RTA shall analyze any available information generated from annual ridership surveys indicating whether minority and/or low-income customers are disproportionately more likely to use the mode of service, payment type, or payment media that would subject to the fare change. The RTA will describe the techniques and/or technologies used to collect data for analysis in its documentation of application of the Monitoring Procedure.

The RTA will conduct the following steps in accordance with this policy:

- Determine the number and percent of overall customers, minority, and low-income users of each fare media being changed;
- Review current fares vs. proposed fare change;
- Compare the statistical percentage differences for each particular fare media between minority users and overall users;
- Compare the statistical percentage differences for each particular fare media between low income users and overall users.

The first portion of the technical equity analysis used data from the 2021 RTA on-board rider survey on fares. The survey was conducted from February to May 2021 and included 808 individual responses. The 808 rider surveys were based on 2020 ridership and a sampling of the current service routes (Appendix A).

While most of the policy options could be analyzed using this rider survey data, a few options could only be analyzed using demographic data and GIS maps to evaluate the policy impacts on minority and low-income populations compared to non-minority and non-low-income populations.

The customers survey analysis in the tables (Figure 6, 7, 8) show that the fare categories of minorities and low-income groups mirror closely with overall usage and one category is not used 20% more by these groups than the overall users which is the threshold percentage for disparate impact or disproportionate burden in RTA's Title VI policies. The Tapp Pay category was included to show adoption rate of the new platform only.

The decrease in cost for regular and reduced single trips, Day Passes, and Monthly Passes was done for Tapp Pay users only. Cash boardings were still charged \$2 and all pass purchases on-board/sales outlets were still charged the existing amount. The reduced cost for the new Tapp Pay system was to incentivize customers to transition to the new platform early. Cash usage among low-income decreased to 13.7% down from 36.1% and minority 12.3% down from 38.1% in the survey results from 2017.

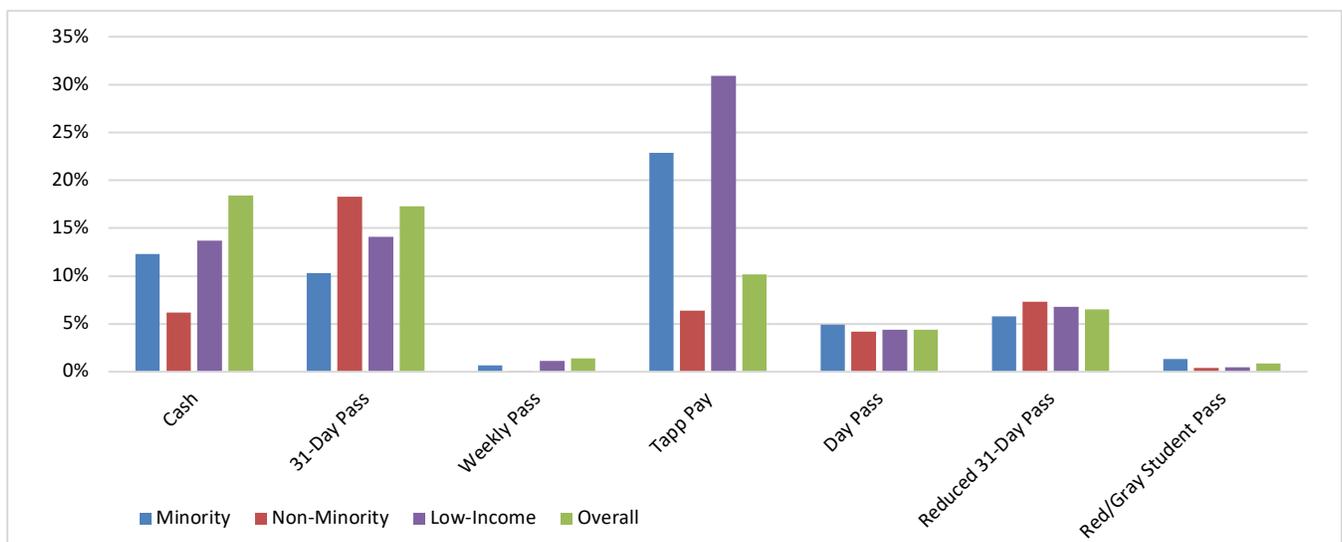


Figure 6 – RTA Surveys February – May 2021

Fare Type	Cost		Change		Usage by Group				
	Existing	TAPP	Absolute	Percentage	Low-income	Diff	Minority	Diff	Overall
Adult Cash*	\$2.00	\$1.50	(\$0.50)	-25.0%	13.7%	-5.8%	12.3%	-7.19%	19.5%
Reduced Cash*	\$1.00	\$0.75	(\$0.25)	-25.0%					
TAPP Pay***					30.9%		40.6%		
Day pass**	\$4.00	\$3.00	(\$1.00)	-25.0%	9.4%	-2.7%	0.7%	-11.4%	12.1%
Reduced Day Pass	\$2.00	\$2.00			3.1%		2.4%	2.4%	3.6%
31 Day Pass	\$55.00	\$30.00	(\$25.00)	-45.5%	14.1%	-21.9%	10.3%	-25.7%	36.0%
7 Day Pass	\$19.00	None			1.1%	-9.1%	12.2%	2.0%	10.2%
Red/Gray Pass	\$30.00	\$30.00	\$0.00	0.0%	0.0%	-0.9%	1.3%	0.4%	0.9%
Reduced 31 Day	\$32.00	\$15.00	(\$17.00)	-53.1%	2.1%	-4.4%	5.8%	-0.7%	6.5%

\* Survey replies were grouped by cash only  
 \*\* Includes addition of two qualifying children to replace Family pass  
 \*\*\* Usage includes weekend in other fare category

Figure 7- Percentage Usage and Customership by Fare Type

Fare Type	Cost		Change		Usage by Group		
	Existing	TAPP	Absolute	Percentage	Low-income	Minority	Overall 2020
Adult Cash*	\$2.00	\$1.50	(\$0.50)	-25.0%	379,777	290,283	364,599
Reduced Cash*	\$1.00	\$0.75	(\$0.25)	-25.0%			
Day pass**	\$4.00	\$3.00	(\$1.00)	-25.0%	260,577	16,520	1,019,122
Reduced Day Pass	\$2.00	\$1.50	(\$0.50)		9,455	56,641	305,012
31 Day Pass	\$55.00	\$30.00	(\$25.00)	-45.5%	390,866	243,083	983,815
7 Day Pass	\$19.00	None			30,493	287,923	780,622
Red/Gray Pass	\$30.00	None			0	30,680	26,902
Reduced 31 Day	\$32.00	\$15.00	(\$17.00)	-53.1%	58,214	136,882	266,004
Total#					2,772,096	2,360,028	3,746,076
* Survey replies were grouped by cash only							
** Includes addition of two qualifying children to replace Family pass							
# Totals not will add up to 100% due to surveyors selecting more than one category							
***TAPP Pay responses included to show the adoption rate for customers							

Figure 8 - Percentage Usage and Ridership by Fare Type

### **Public Participation Plan**

The Greater Dayton RTA complies with Federal Transit Law 49 United States Code (USC) Chapter 53, Section 5307 (d)(1)(I) by developing a locally written process for soliciting and considering public comment before raising a fare or carrying out a major service reduction. In addition, the following public outreach and participation plan meets the requirements of U.S. DOT Order 5610.2(a), Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, FTA C 4703.1 Environmental Justice.

The RTA employs several means to communicate to the general public regarding the activities it performs including LEP (limited-English proficient) and minority populations. The communication activities may focus in different mediums depending on the program or population affected. These include but are not limited to:

### ***Public Information and Notifications***

RTA publishes notices, brochures and tables regarding RTA proposals or programs, including how the public can obtain information and make comments, where meetings are to take place, and other applicable information. The notices for public input are posted 30 days in advance so the public has time to consider proposals and make comments. The notice methods include:

- Press releases to local and state media
- Customer newsletters (print and email)
- E-mail blasts and alerts via text or e-mail
- Website links and articles
- On bus advertising with interior cards, exterior bus banners, onboard enunciator, and TV monitors on partial bus fleet
- Rack cards/"take ones" placed on the bus and racks throughout RTA transit centers
- Transit Center posters and brochures
- Spanish translation services and translated materials including fare media signs, pass rack cards, system map information, bus hailer kits, translation assistance cards, critical notifications and forms such as Title VI notice and application forms
- Radio, television or newspaper ads considering stations and publications that serve LEP and minority population

- On board customer surveys to receive customer feedback on service change proposals from those who are directly affected by the proposed changes

### **Meeting Location**

When RTA wants to advise the public of specific projects that will have a direct impact on customers, RTA staff will conduct personal interviews at the major downtown transit center and transcribe oral comments or assist customers with computer surveys to receive customer input. The meetings for the Tapp Pay payment system were held at Wright Stop Plaza at two different times. This location has convenient access to transit and are centrally located so that anyone in its service area can attend meetings and receive information about any RTA activities that will impact them, especially LEP and minority populations. Meetings were held at several different times of the day for easier access. The public meeting location was accessible to those with disabilities. Also, the Rider Survey was available for attendees to fill out. If notified five (5) days prior to the meeting, language or hearing interpreters will be made available. Figure 9 shows the meeting schedule for the public hearing on the Tapp Pay system changes.

<b>Meeting Date</b>	<b>Location</b>	<b>Area Focus</b>	<b>Number of Attendees</b>	<b>Minority Demographic Groups Identified Among Participants</b>	<b>Language Translation at Meeting</b>
Monday Apr. 12, 2021 8:00am	W.S.P. 4 South Main St. Dayton, Ohio 45402	Montgomery County	5 citizens 7 staff	African-American, female Seniors	None
Monday Apr. 12, 2021 5:30pm	W.S.P. 4 South Main St. Dayton, Ohio 45402	Montgomery County	6 citizens 5 staff	African-American, female Seniors	None

*Figure 9 - Tapp Pay Title VI Public Engagement Meetings*

The meetings were conducted by RTA staff and they covered the following agenda items:

- Introduction & Overview of project by Chief Customer Business Development Officer
- Tapp Pay video on the fare payment system
- Breakout sessions to cover the following:
  - RTA Connect (Paratransit) Services
  - Fixed Route Services
  - Transit APP
  - Account Based Questions

On critical issues such as major service changes and all fare changes, RTA conducts public meetings that utilize one-on-one interviews with customers. RTA staff prepares proposals in sufficient detail and makes copies available prior to the meeting for interested individuals. If the proposal involves service changes, maps are made available. Since each customer can be affected differently than another customer, obtaining comments this way allows for an individualized response to an individual need. RTA staff will conduct personal interviews and transcribe oral comments if written comments are not possible.

Meetings will have sign-up sheets available and if no one is in attendance, staff will wait for 10 minutes and then announce the reason for the meeting, a statement that no one is in attendance and close the meeting. Customers are also able to leave audio messages on an advertised phone number prior to the advertised deadline for public feedback and the comments are transcribed for RTA's analysis along with all public feedback received. The public comments are presented at Board of Trustee Committee meetings so that they are part of the decision making process.

The only feedback received at the meetings were positive on the new system after RTA staff explained how it would work and an announcement issue, which was unrelated to the information covered at the hearing. (*Appendix B*)

### **Website**

RTA's website provides round-the-clock information on the transit system, including fare structures, route schedules and maps. Any changes in service, such as weather anomalies, traffic reroutes, or holiday hours, are made available on the site. RTA press releases and customer newsletters are published on the site. The site has Google Translation software for on demand translation to Spanish. RSS messages can be sent to customer phones for immediate service alerts when they sign-up for the service. Customers also may apply on line to become a member of RTA's Customer Advocacy Group, which reports directly to the RTA management staff. This council is representative of both minority and non-minority groups.

## **Explanation and Analysis of Potential Adverse Effects to Proposed Fare Changes**

### **Use of Cash Conversion Retail Outlets**

#### *Explanation*

The proposed retail cash conversion network for Tapp Pay, where customers would be able to utilize cash and load 100% of that value onto smartphone or smartcard Tapp Pay account.

#### *Analysis of Potential Adverse Effects*

RTA evaluated this plan to compare benefits that minority, non-minority, low-income, and non-low-income populations will receive. RTA mapped the locations of the retail outlets, overlaid on the minority and low-income populations within the service district. RTA then compared percentages of minority and low-income populations with access to the retail outlets to those of non-minority and non-low-income populations, respectively, to determine if a potential disparate impact or disproportionate burdens exists.

As background, RTA first mapped the minority and low-income populations within the service area. Figure 10 depicts the percentage of low-income individuals per block group. RTA defines low-income as those earning less than 150% of the federal poverty level. The service area average 25.6% low-income. These block groups are spread throughout the service area, though particularly within the City of Dayton. Figure 11 depicts the minority block groups within the service area at 29.3%.

Figure 12 depicts the location of the new retail outlets currently being utilized and those being brought online with the Tapp Pay payment system project. RTA started in 2020 with just over 10 locations and currently stand at 202 retail locations for individuals to access which are within ¼ of a mile of RTA’s fixed bus routes, with over 300 within the county RTA serves. This is large increase over the last 2 years of this project.

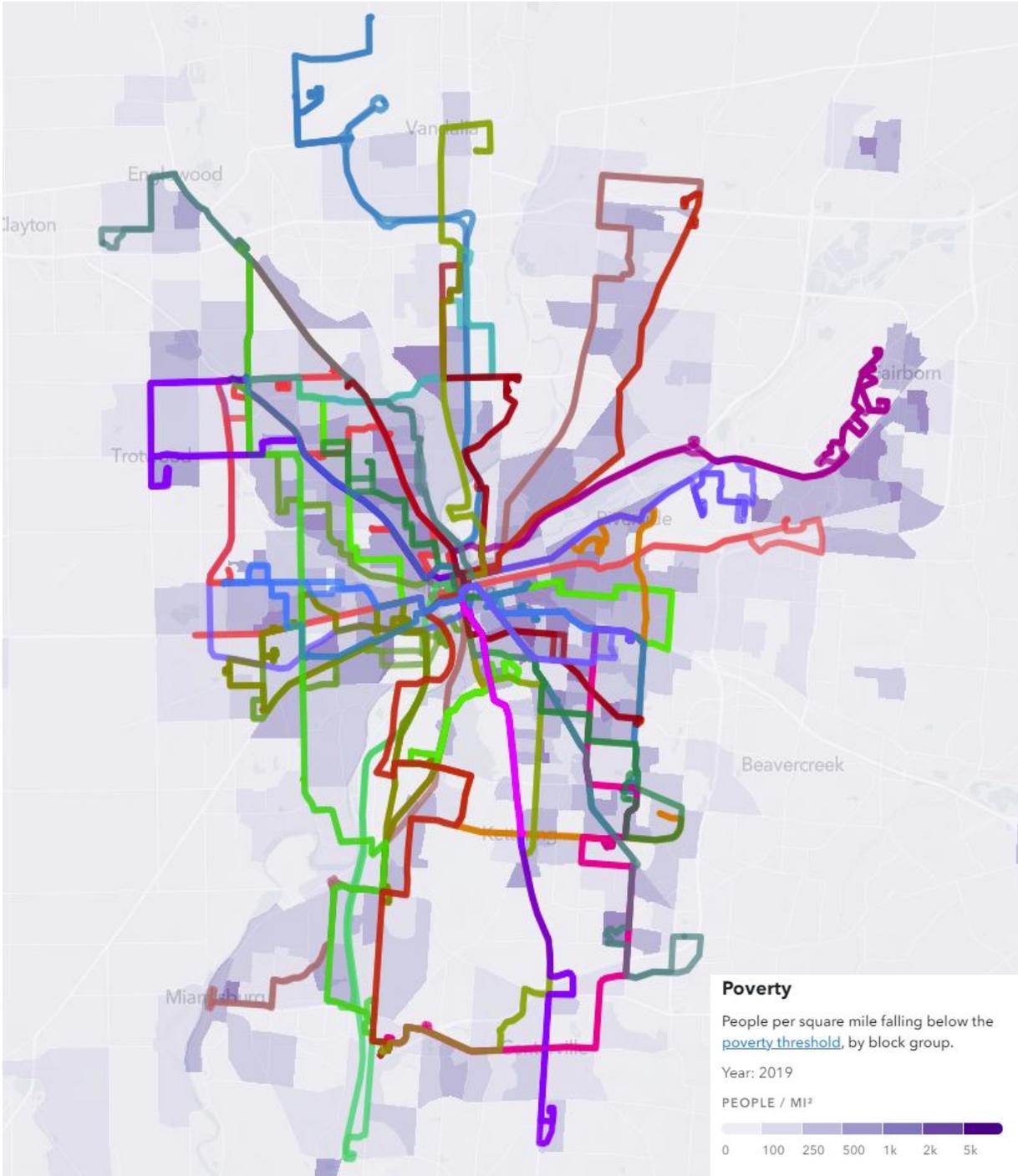


Figure 10 - RTA Low-Income Service Area Analysis Map

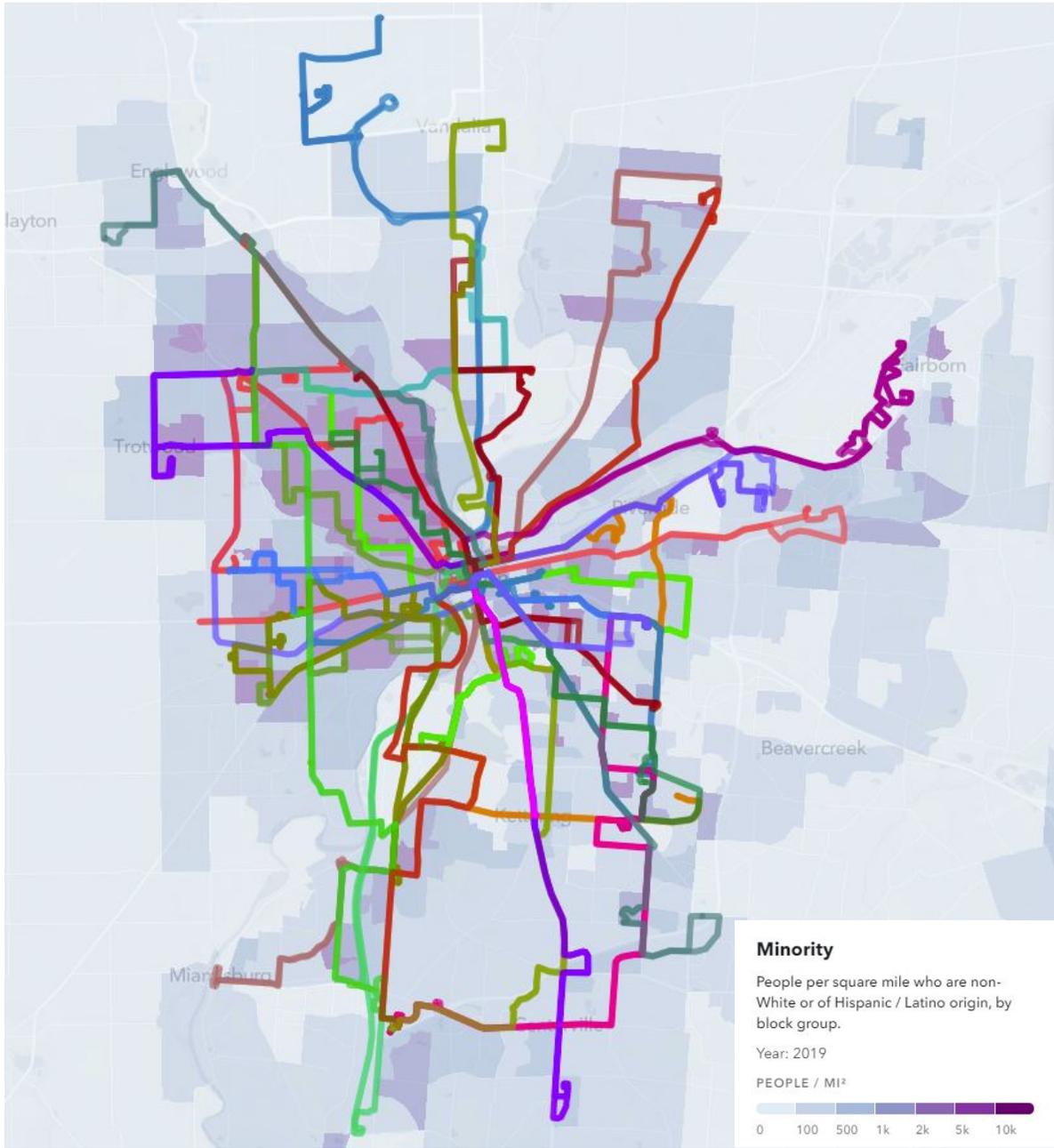


Figure 11 - RTA Minority Service Area Analysis Map

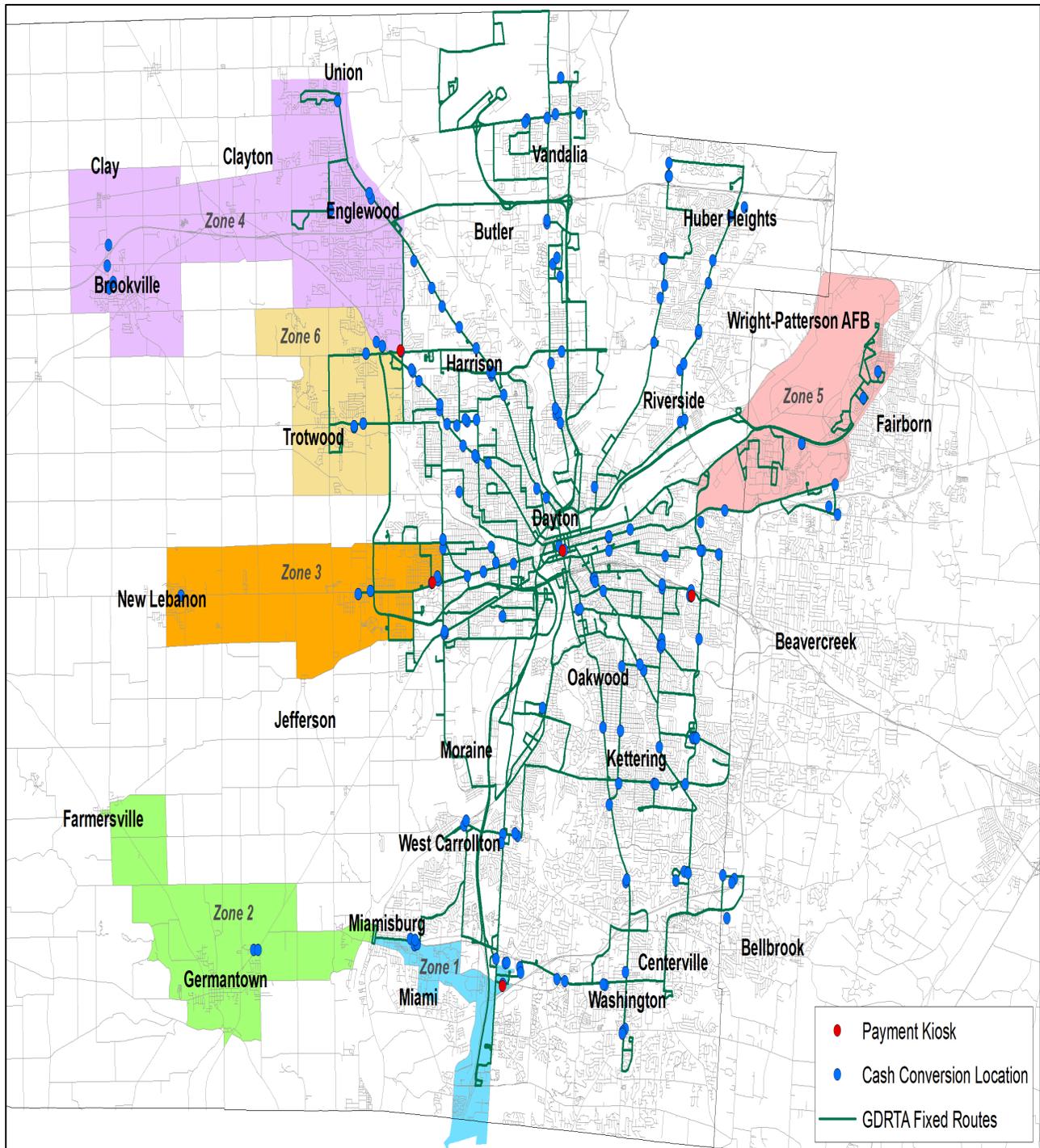


Figure 12 –RTA Tapp Pay Payment Kiosks and Cash Retail Networks (2021)

Racial	Population	Minority	Percentage	Population Change	Population Percentage Change	Minority Change	Minority Percentage Change
2019	58,661	19,530	33%	-	-	-	-
2020	63,504	22,466	35%	4,843	8%	2,936	15%
2021	71,103	23,812	33%	7,599	12%	1,346	6%
*Within .25 miles of Tapp Pay locations							
Earnings	Population	Low-Income	Percentage	Population Change	Population Percentage Change	Low-Income Change	Low-Income Percentage Change
2019	46,625	29,920	64%	-	-	-	-
2020	49,712	32,045	64%	3,087	7%	2,125	7%
2021	54,735	35,004	64%	5,023	10%	2,959	9%
*Within .25 miles of Tapp Pay locations							
**Low-Income: Individuals having an annual salary of less than \$25,000							
Ridership	Daily Average Ridership	Ridership Change	Ridership Percentage Change				
2019	9,621	-	-				
2020	9,772	151	2%				
2021	10,761	989	10%				
*Ridership for GRTDa bus stops within .25 miles of Tapp Pay locations							
**Daily average weekday ridership for GDTRA's August 2020 service period							

Figure 13 - RTA Analysis of Retail Locations

Figure 13 includes the locations of six (6) ticket-vending machines (TVM) which RTA owns and operates. The only (2) two TVM's in service currently accepting cash are located at its downtown transit center, 4 South Main Street, Dayton, Ohio 45402. However, a vast majority of RTA's customers traverse through the downtown transit center daily under its hub and spoke system. Figure 14 shows the analysis completed on the retail locations.

Figure 13 also shows the current locations mapped and the RTA used a ¼ mile buffer around them and the block groups within the ¼ mile buffer were considered as having access to a retail location. Currently, 33% minorities and 64% low-income individuals with the service area. The increase in locations from 2020 to 2021 was 22.7% more locations and a -2% minority population and 0% change in low-income population access. Percentages of both minorities and low-income individuals having access to the retail locations within the service area is not statistically significant. Therefore, **no disparate impact or disproportionate burden is found.**

## **Fare Capping Available on New Payment System**

### *Explanation*

Fare caps will limit the amount a rider spends on RTA in a given day or month (rolling 31-day period). During the initial phases reduced daily and monthly fare caps were and continue to be made available on smartcard and smartphone Tapp Pay accounts as of this report. The daily fare cap was a 25% decrease in cost for daily users and 45.5% decrease in cost for monthly users. While these are current promotional rates, RTA may consider moving rates back to the standard fare outlined within the agency's official Fare Tariff structure.

### *Analysis of Potential Adverse Effects*

Fare caps are available to customers who utilize a Tapp Pay smartphone or smartcard, which was evaluated above. Additionally, RTA examined the customers that may benefit from the fare caps to determine if disparate impacts or disproportionate burdens may occur. Customers that pay their fares by cash may benefit from the fare caps if they ride frequently enough.

Assuming these customers switch to a Tapp Pay smartcard or smartphone account, they will receive the benefits of daily and monthly passes through the fare caps, without having to pay the upfront cost of a pass.

Overall, customers who pay by cash and ride frequently enough to benefit from the new fare caps account for 18.4% of the trips, including 12.3% of the minority trips and 6.2% of the non-minority trips. The data shows a -6.1% difference between minority and non-minority cash usage, where customers travel frequently enough to benefit from the fare caps and is not statistically significant, so ***no disparate burden is found***.

Overall, customers who pay by cash and ride frequently enough to benefit from the new fare caps account for 14.1% of the trips, including 14.1% of the minority trips and 18.3% of the non-low-income trips. The difference of -7% shows no statistically significant difference between groups, so ***no disparate impact is found***. It is worth noting that the fare caps did not garner any public input during the hearings or the open comment period of 30 days. This was a feature most participants liked during the presentation. The rider survey responses showed 12.1% respondents used the Day Pass of which 94% of respondents took more than 5 trips per day on the pass and would continue to benefit from the fare caps under the new system based on responses in Question 8.

## **Elimination of the 7-Day Pass**

### *Explanation*

The 7-Day (Weekly) Pass was created as an alternative for customers who could not afford the upfront cost of a monthly pass. This product has not been well-utilized since its inception, and would be eliminated for several reasons: first, because of new daily and monthly fare caps in place under Tapp Pay; second, customers will be able to load value to a Tapp Pay smartcard in any increment \$3 or greater at ticket-vending machines or \$1 or more at a retail outlet; and third, in order to simplify the fare structure. This pass elimination was evaluated for the potential adverse effects on current pass users, as well as the potential benefits that current pass users will receive from the new fare caps.

### *Analysis of Potential Adverse Effects*

RTA evaluated this policy option for the potential effects on customers that currently use the 7-Day Pass—namely, under the Tapp Pay system these customers will need to pay per trip. If the customers transition to using Tapp Pay, they will benefit from the fare caps; however, the total cost for a 7-Day period (e.g., \$21 for Adult fares) will be higher than the current cost of a 7-Day Pass (e.g., \$19 for Adult fares).

Overall, customers use the 7-Day Pass for 1.4% of trips, including .7% minority trips and .0% non-minority trips. The difference between minority and non-minority usage of the 7-Day Pass is not statistically significant, so ***no disparate impact is found***.

Overall, customers use the 7-Day Pass account for 1.4% of trips, including 1.1% of the low-income and .0% of the non-low-income trips. The difference between low-income and non-low-income usage of the 7-Day Pass is not statistically significant, so ***no disparate impact is found***.

## **Elimination of the Red/Gray Student Passes**

### *Explanation*

The Red/Gray Student Passes were created as an alternative for student customers who could not afford the upfront cost of a monthly pass. This product has not been well-utilized since the loss of the Limited Stop Service contract with the Dayton Public School system, and would be eliminated for several reasons: first, because of new daily and monthly fare caps in place under Tapp Pay; second, student customers will be able to utilize school funded transportation options in 2021; and third, in order to simplify the fare structure. This was evaluated for the potential adverse effects on current pass users, as well as the potential benefits that current pass users will receive from the new fare caps.

### *Analysis of Potential Adverse Effects*

RTA evaluated this pass elimination for the potential effects on customers that currently use the Red/Gray Passes, under the new Tapp Pay system these student customers will need to pay per trip. If the student customers transition to using smartcards/Transit App, they will benefit from the new fare caps; however, the total cost for a Red/Gray Pass (e.g., \$30 for Adult fares) will be equal to the current cost of Red/Gray Passes (e.g., \$30 for Student Fares).

Overall, customers use the Red/Gray Passes account for .9% of trips, including 1.3% minority trips and .4% non-minority trips. The difference between minority and non-minority usage of the Red/Gray Passes is not statistically significant, so ***no disparate impact is found***.

Overall, customers use of the Red/Gray Passes account for .9% of trips, including .5% of the low-income and .0% of the non-low-income trips. The difference between low-income and non-low-income usage of the Red/Gray Passes is not statistically significant, so ***no disparate impact is found***.

## **Elimination of On-Board Cash Collection**

### *Explanation*

The proposed elimination of cash on-board all vehicles for November 1, 2021. The RTA has mitigated this future proposed change throughout the project by adjusting timelines and offering incentives to customers to migrate to the new system. This in addition to providing customer's accounts to go negative and future operational procedures to allow mid-trip boardings for customers unaware of no cash payments on-board. This process of fare collection has existed for some time and will be a major operational change for the RTA but will be eliminated for the several reasons: first, to provide more equity to its customers; second, make the experience of boarding more efficient and convenient to the customers and operators; third, operational efficiencies; forth, simplify the fare structure.

### *Analysis of Potential Adverse Effects*

RTA evaluated this for the potential effects on customers that currently use cash—namely, under the new Tapp Pay system these cash users will need to pre-pay per trip. The cash user will need transition to using Tapp Pay and they will benefit from the new fare caps. While it is a \$3 minimum to get a Tapp Pay smartcard, that \$3 is 100% placed on the account and available for use. At this time RTA has no plans to charge a fee for the card.

Overall, cash users account for 19.5% of trips, including 12.3% minority trips and 6.2% non-minority trips. The difference between minority and non-minority usage of cash shows a statistically significant and would impact minority users disproportionately, so a potential disparate impact is found.

Overall, cash users account for 19.5% of trips, including 13.7% of the low-income trips and 14.2% of the non-low-income trips. The difference between low-income and non-low-income cash users is not statistically significant, so ***no disparate impact is found***.

## **Card Registration**

### *Explanation*

Registration of the Tapp Pay smartcard is an option for all RTA customers, including those eligible for reduced fares. This means customers can remain anonymous while using Tapp Pay. Registration would provide lost value protection and facilitate the re-loading of smartcards. RTA provides translation services for callers who speak a language besides English, and this service will be available for smartcard registration upon request during customer service hours.

### *Analysis of Potential Adverse Effects*

At the time the fare equity analysis was completed, RTA was unable to evaluate online registration of the smartcard because data on rider's access to the internet was not available. RTA will consider collecting this data through a future rider survey. Participants in the public engagement process did not provide input on card registration. However, RTA maintains that since account creation is not required to receive the full value of the Tapp Pay system, this is likely to not yield a disparate impact.

## **Summary of Analysis on Proposed Fare Changes**

RTA used the 2021 data from a rider survey on fares for the fare equity analysis. A copy of the responses to the survey can be found in Appendix A. The 2021 survey collected the following information pertinent to the fare equity analysis:

- Transfers
- Fare Types (Adult, Youth, Reduced)
- Fare Products (Tickets, Passes)
- Use of Tapp Pay payment for one-way trip or round trip
- Number of trips taken on 1-day pass
- Number of trips taken in last month
- Location that fare was purchased
- Availability of checking or savings account
- Availability of regular debit or credit card
- Ethnicity
- Income
- English proficiency
- Language spoken at home

The survey data on ethnicity was used to evaluate the potential impacts on minority trips, where “minority” was defined as all races/ethnicities besides white, non-Hispanic. The survey data on income was used to evaluate the potential impacts on low-income trips, where “low-income” was defined as at or below 150% of the federal poverty level set by the U.S. Department of Health and Human Services.

A copy of the survey instrument is included at the end of this appendix. Note that survey data on rider demographics (percentage minority, low-income and LEP may differ from the service area demographics that RTA has identified using U.S. Census and American Community Survey data used in *Table 4*. This complete system analysis is attached in Appendix C. The fare equity analysis used the survey data on minority and low-income trips.

The equity analysis shows no disparate impact except for the elimination of cash collection on-board the vehicles. However, the survey data collected shows early adoption of the new Tapp Pay payment system among minority users was 40.6% compared to only 16.2% non-minority users. Also, the data collected shows early adoption of the new Tapp Pay payment system among low-income users was 30.9% compared to only 14.2% of non-low-income users. These high percentages of minority and low-income adopters shows the mitigation efforts were effective.

Based off the data collected by the RTA in the rider survey and the attached July 2021 Report on the Tapp Pay system (*example of a report sent to staff monthly Appendix D*) the July data shows cash collection now only accounts for 6% of all boardings compared to TAPP Pay users at 65% of all boardings. The report also shows since May 2020 cash usage had decreased from 43% to 27% overall. The report details public outreach and informational items on the new system, which helps RTA staff monitor the project and keep it on schedule. The updated phasing can be seen in the attached July 2021 report. Based on all the information available, RTA’s early mitigation efforts have been successful and the removal of cash collection from on-board the vehicles has shown to be a lesser burden for minority and low-income users and can move forward with the removal of cash on-board the vehicles on November 1, 2021.

# ***Appendix A***

# Rider Survey

Monday, June 07, 2021



# 808

Total Responses

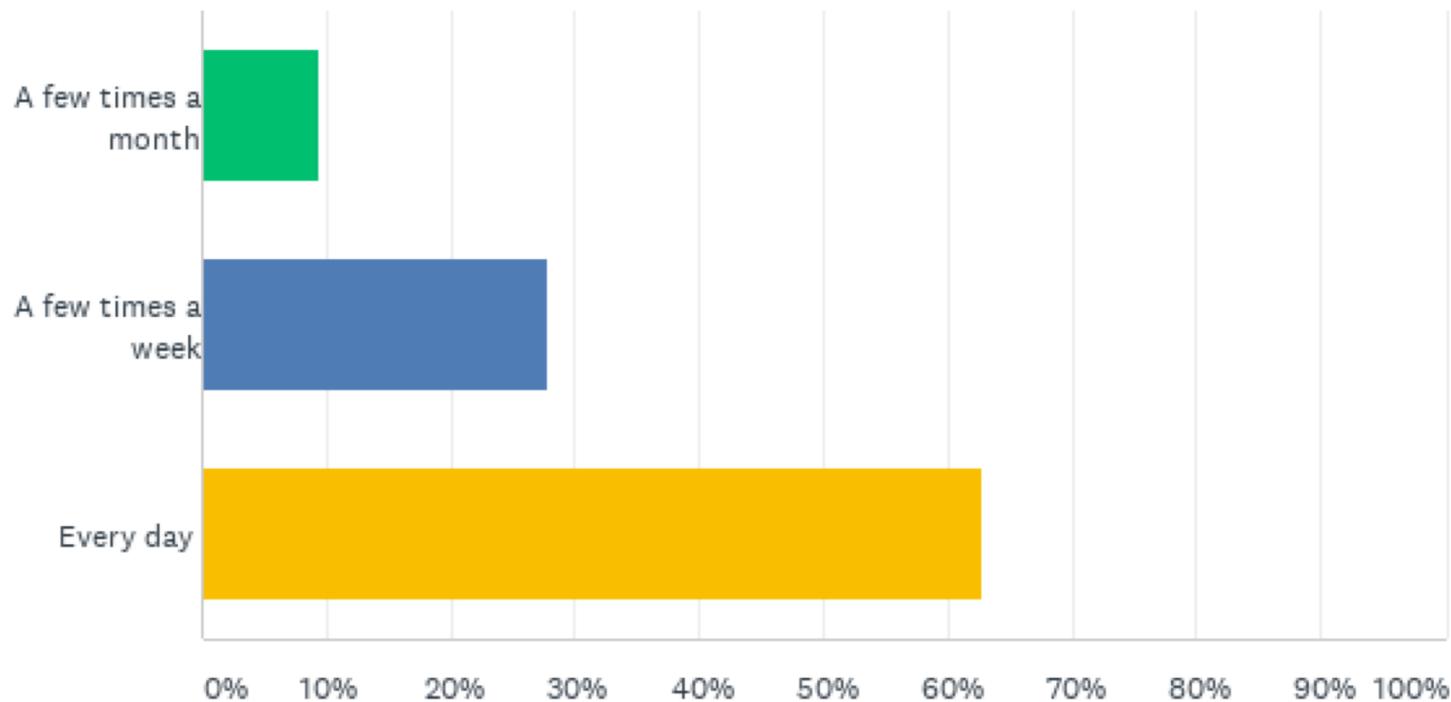
Date Created: Friday, December 04, 2020

Complete Responses: 808



## Q2: Typically, how often do you ride an RTA Bus?

Answered: 782 Skipped: 26



## Q2: Typically, how often do you ride an RTA Bus?

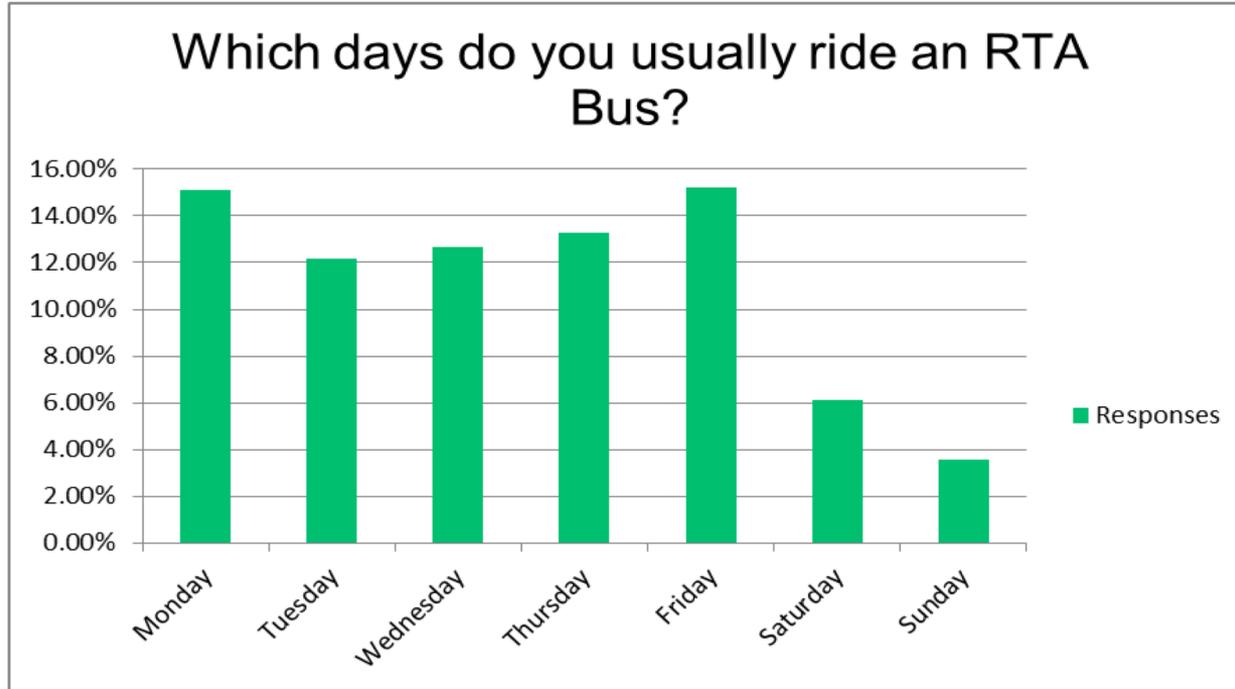
---

Answered: 782 Skipped: 26

ANSWER CHOICES	RESPONSES	
A few times a month	9.46%	74
A few times a week	27.75%	217
Every day	62.79%	491
TOTAL		782

### Q3: Which days do you usually ride an RTA Bus?

Answered: 782 Skipped: 26



### Q3: Which days do you usually ride an RTA Bus?

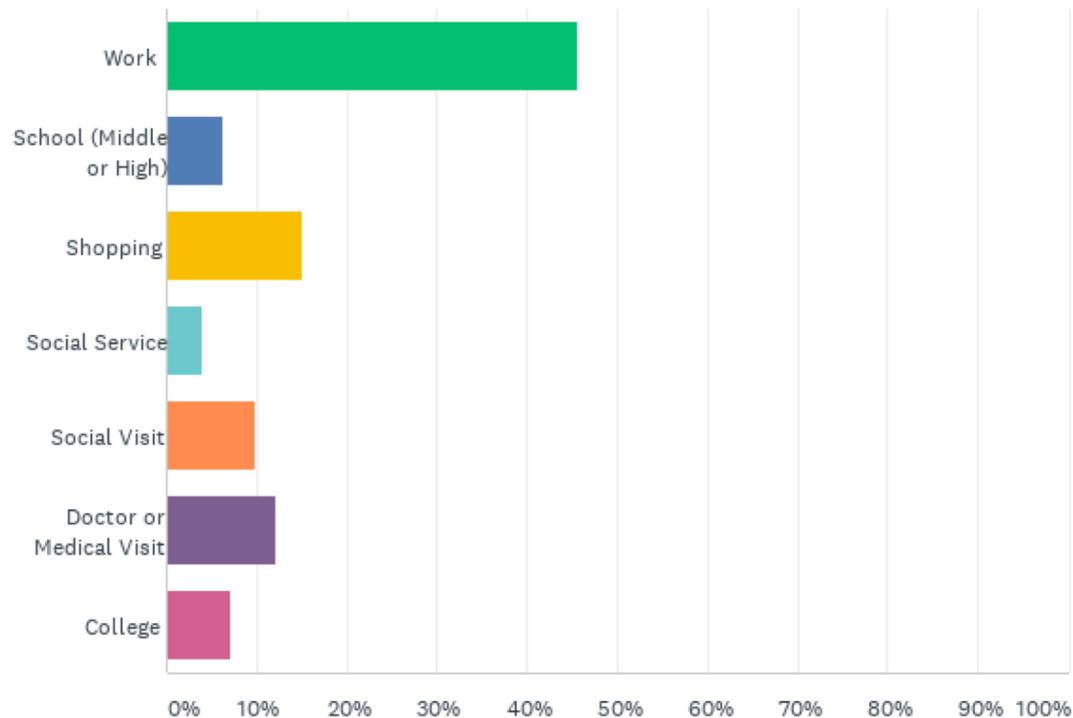
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Answered: 782 Skipped: 26

ANSWER CHOICES	RESPONSES	
Monday	15.09%	754
Tuesday	12.15%	731
Wednesday	12.66%	735
Thursday	13.30%	740
Friday	15.22%	755
Saturday	6.14%	684
Sunday	3.58%	664

## Q4: What is the main purpose in using the bus for the trip?

Answered: 802 Skipped: 6



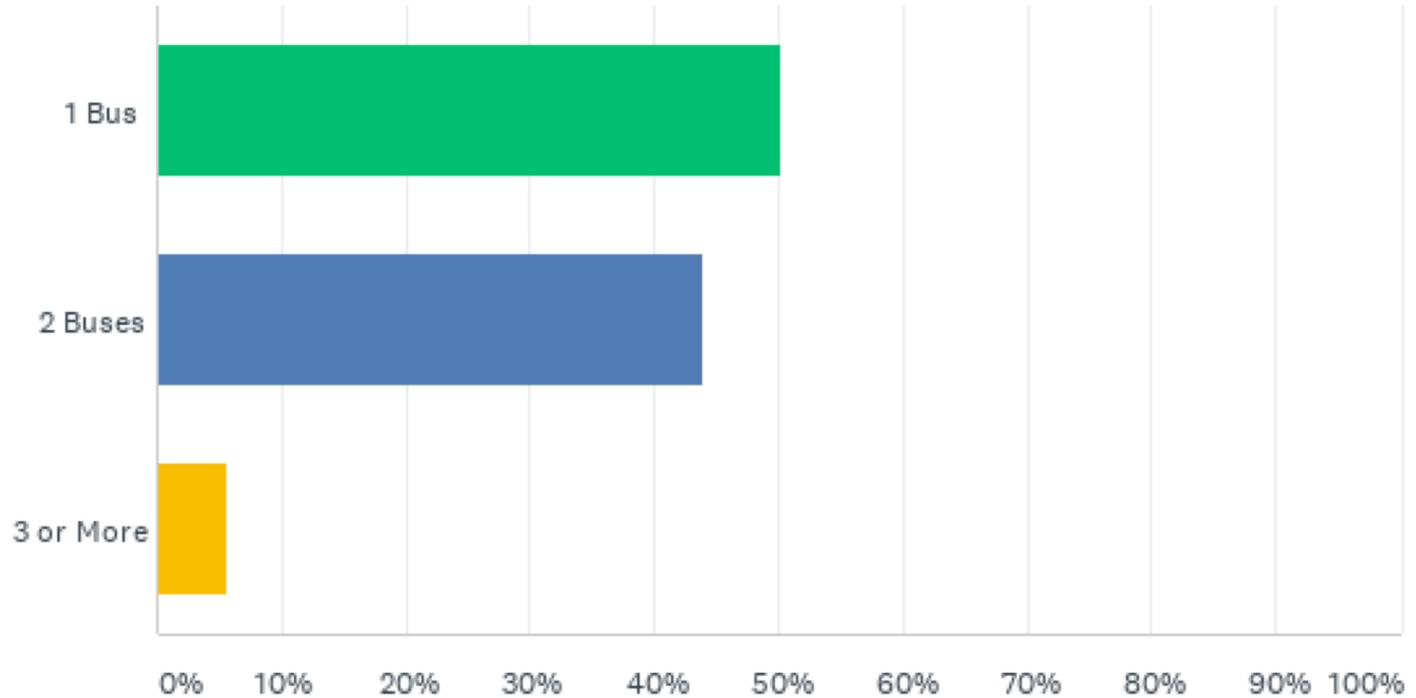
## Q4: What is the main purpose in using the bus for the trip?

Answered: 802 Skipped: 6

ANSWER CHOICES	RESPONSES	
Work	45.51%	365
School (Middle or High)	6.23%	50
Shopping	15.09%	121
Social Service	3.99%	32
Social Visit	9.85%	79
Doctor or Medical Visit	12.22%	98
College	7.11%	57
TOTAL		802

## Q5: How many separate buses do you have to use to make this one-way trip to where you are going now?

Answered: 803 Skipped: 5



## Q5: How many separate buses do you have to use to make this one-way trip to where you are going now?

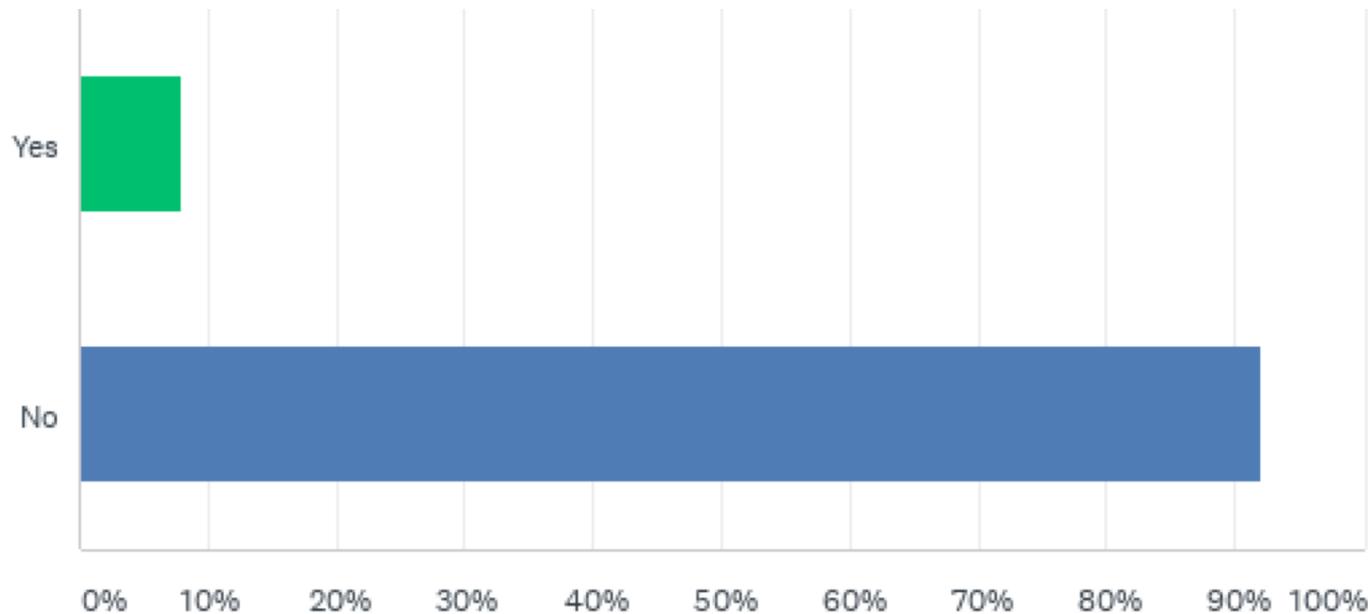
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Answered: 803 Skipped: 5

ANSWER CHOICES	RESPONSES	
1 Bus	50.31%	404
2 Buses	43.96%	353
3 or More	5.73%	46
TOTAL		803

## Q6: Do you have a vehicle you could have used to make this trip-either as the driver or passenger?

Answered: 771 Skipped: 37



## Q6: Do you have a vehicle you could have used to make this trip-either as the driver or passenger?

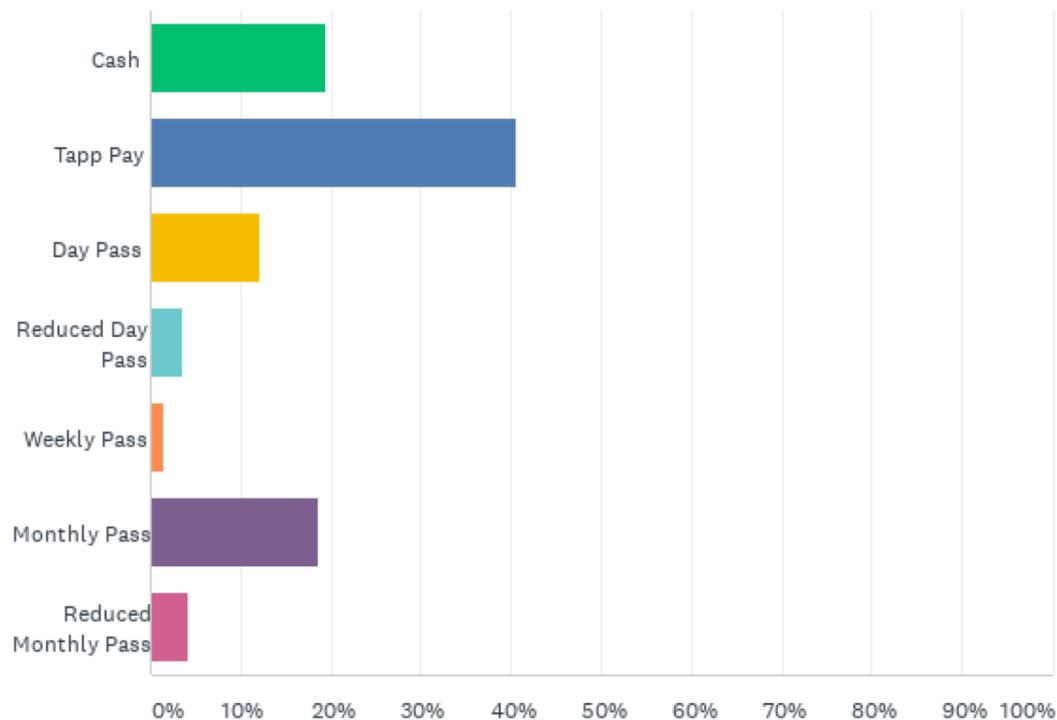
---

Answered: 771 Skipped: 37

ANSWER CHOICES	RESPONSES	
Yes	7.91%	61
No	92.09%	710
TOTAL		771

## Q7: How did you pay for your most recent trip?

Answered: 785 Skipped: 23



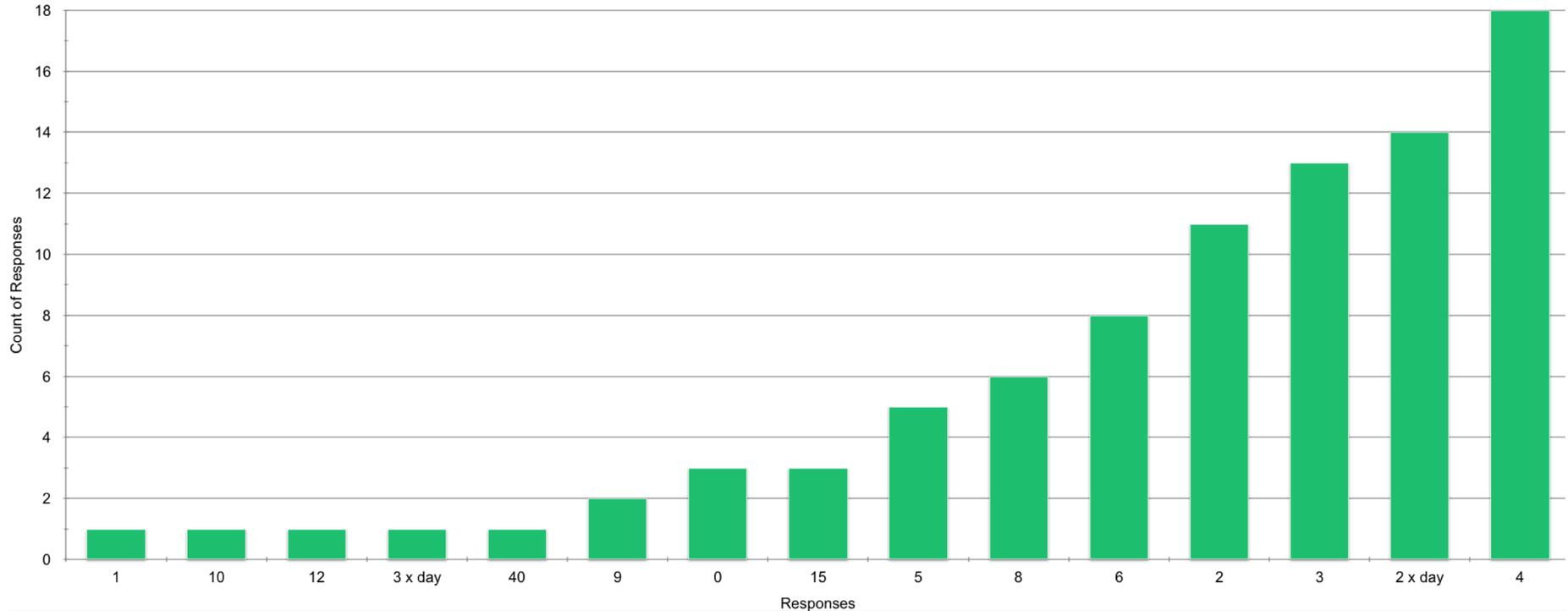
## Q7: How did you pay for your most recent trip?

Answered: 785 Skipped: 23

ANSWER CHOICES	RESPONSES	
Cash	19.49%	153
Tapp Pay	40.64%	319
Day Pass	12.10%	95
Reduced Day Pass	3.57%	28
Weekly Pass	1.40%	11
Monthly Pass	18.60%	146
Reduced Monthly Pass	4.20%	33
<b>TOTAL</b>		<b>785</b>

# Q8: If you are using a Day Pass, how many trips will you make on it today?

Answered: 80 Skipped: 728



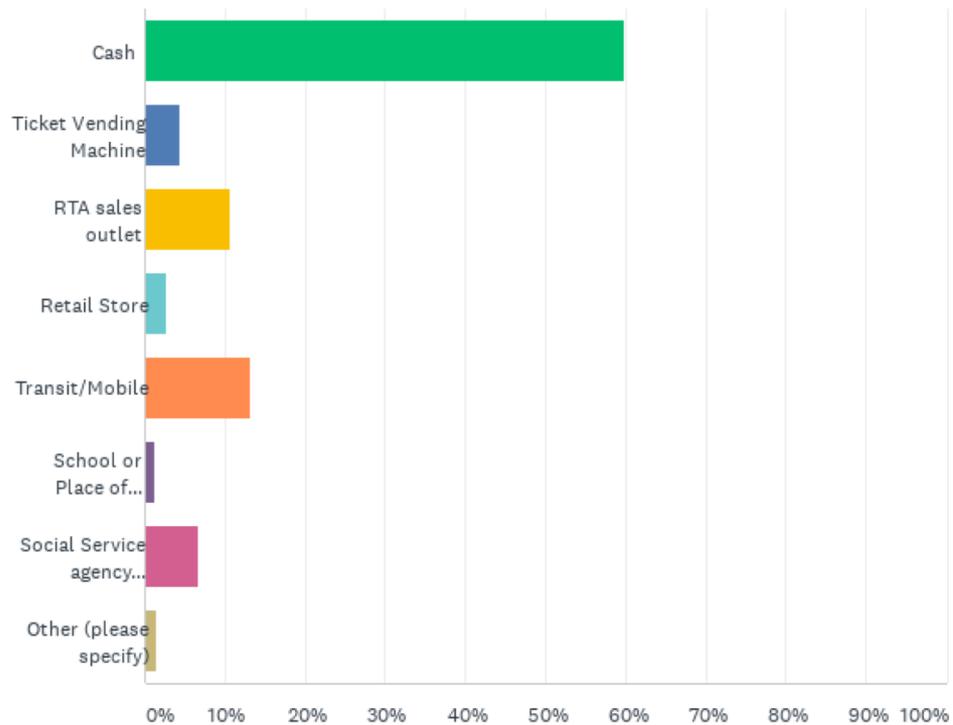
## Q9: Where did you buy your fare for this trip?

Answered: 780 Skipped: 28

ANSWER CHOICES	RESPONSES	
Cash	59.74%	466
Ticket Vending Machine	4.36%	34
RTA sales outlet	10.64%	83
Retail Store	2.69%	21
Transit/Mobile	13.08%	102
School or Place of Employment	1.28%	10
Social Service agency purchased for me	6.67%	52
Other (please specify)	1.54%	12
TOTAL		780

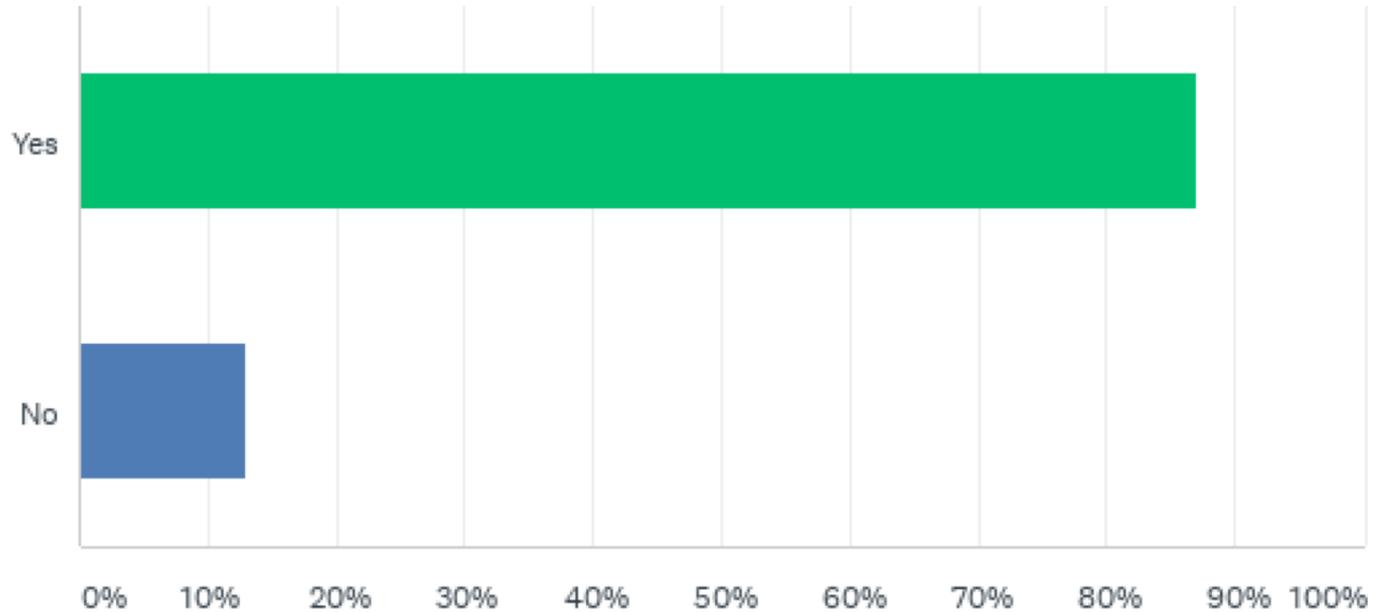
## Q9: Where did you buy your fare for this trip?

Answered: 780 Skipped: 28



# Q10: Would you be comfortable using a reloadable fare card to pay for your trip?

Answered: 790 Skipped: 18



## Q10: Would you be comfortable using a reloadable fare card to pay for your trip?

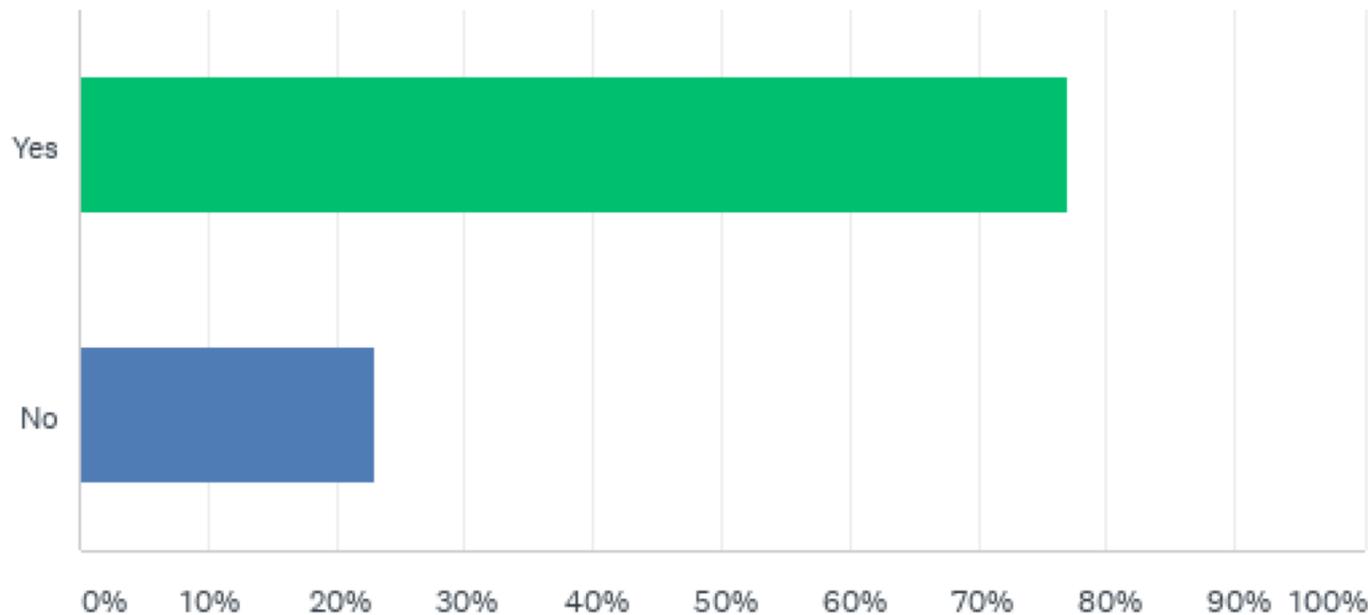
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Answered: 790 Skipped: 18

ANSWER CHOICES	RESPONSES	
Yes	86.96%	687
No	13.04%	103
TOTAL		790

## Q11: Do you have a checking or savings account?

Answered: 792 Skipped: 16



## Q11: Do you have a checking or savings account?

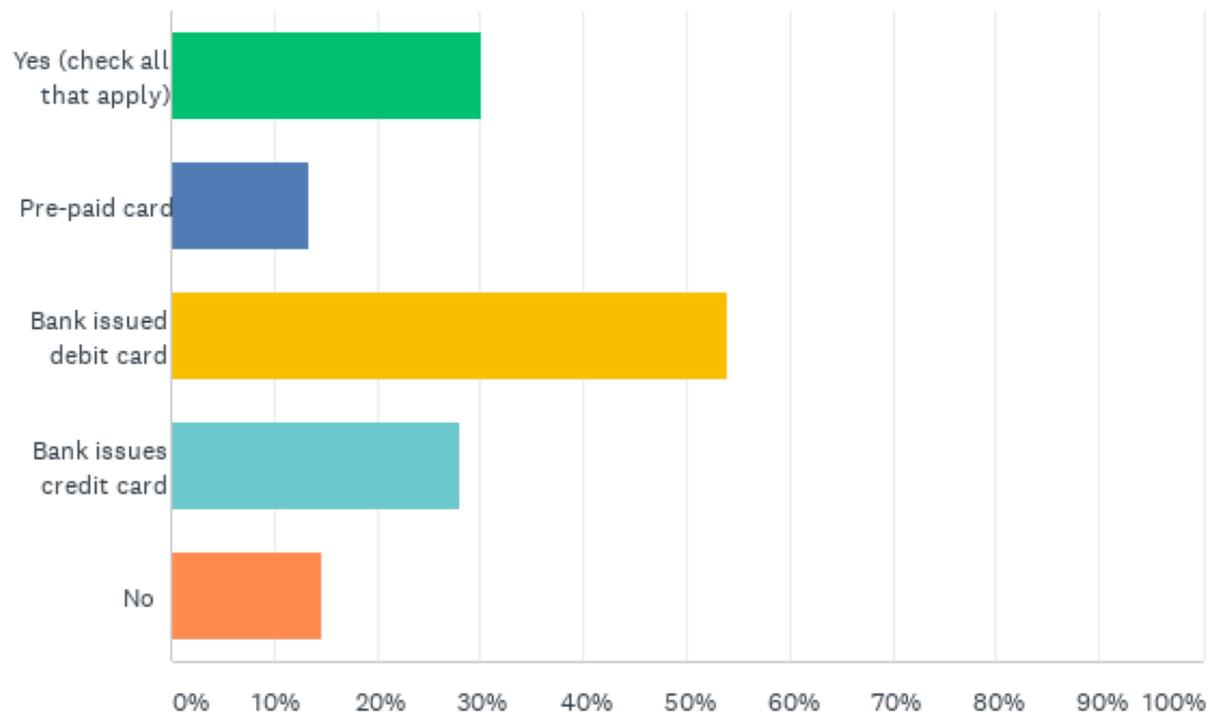
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Answered: 792 Skipped: 16

ANSWER CHOICES	RESPONSES	
Yes	77.02%	610
No	22.98%	182
TOTAL		792

## Q12: Do you have or use a pre-paid or regular debit or credit card?

Answered: 716 Skipped: 92



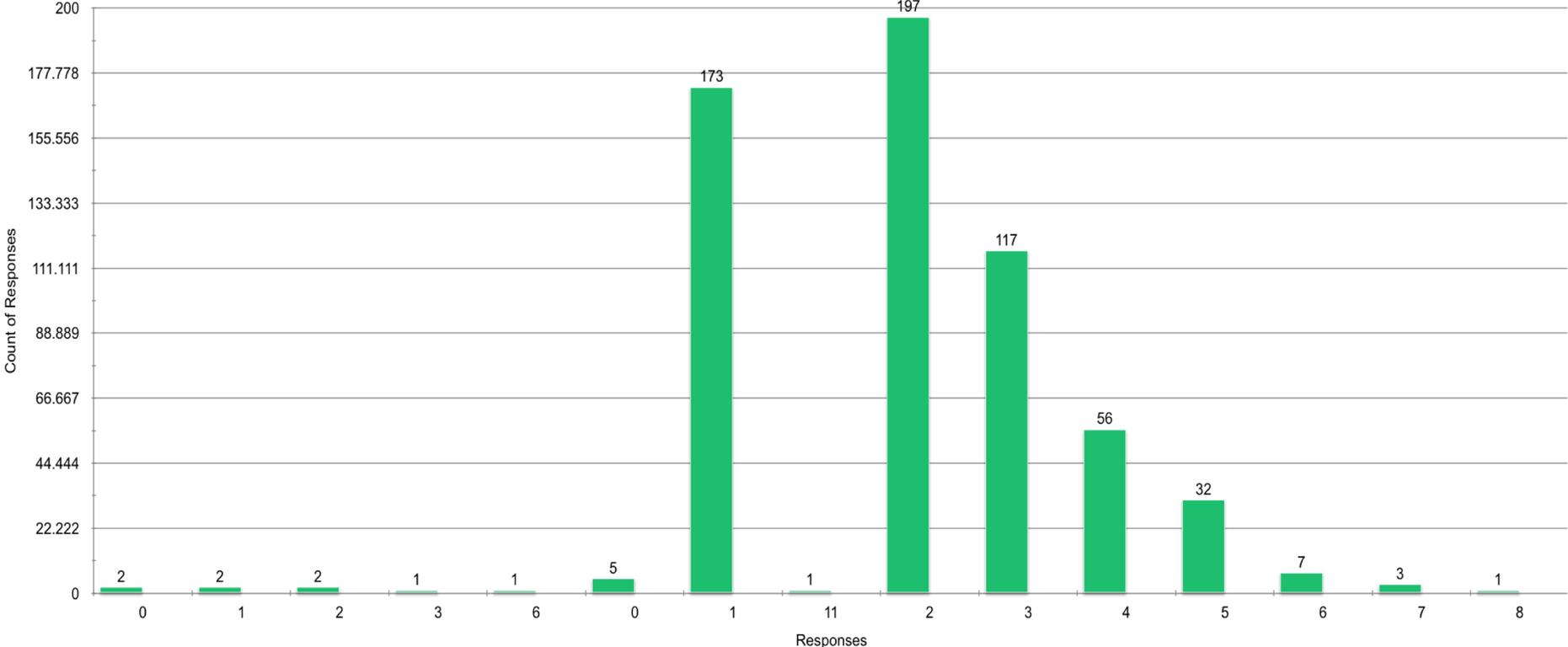
## Q12: Do you have or use a pre-paid or regular debit or credit card?

Answered: 716 Skipped: 92

ANSWER CHOICES	RESPONSES	
Yes (check all that apply)	30.03%	215
Pre-paid card	13.41%	96
Bank issued debit card	53.91%	386
Bank issues credit card	27.93%	200
No	14.66%	105
Total Respondents: 716		

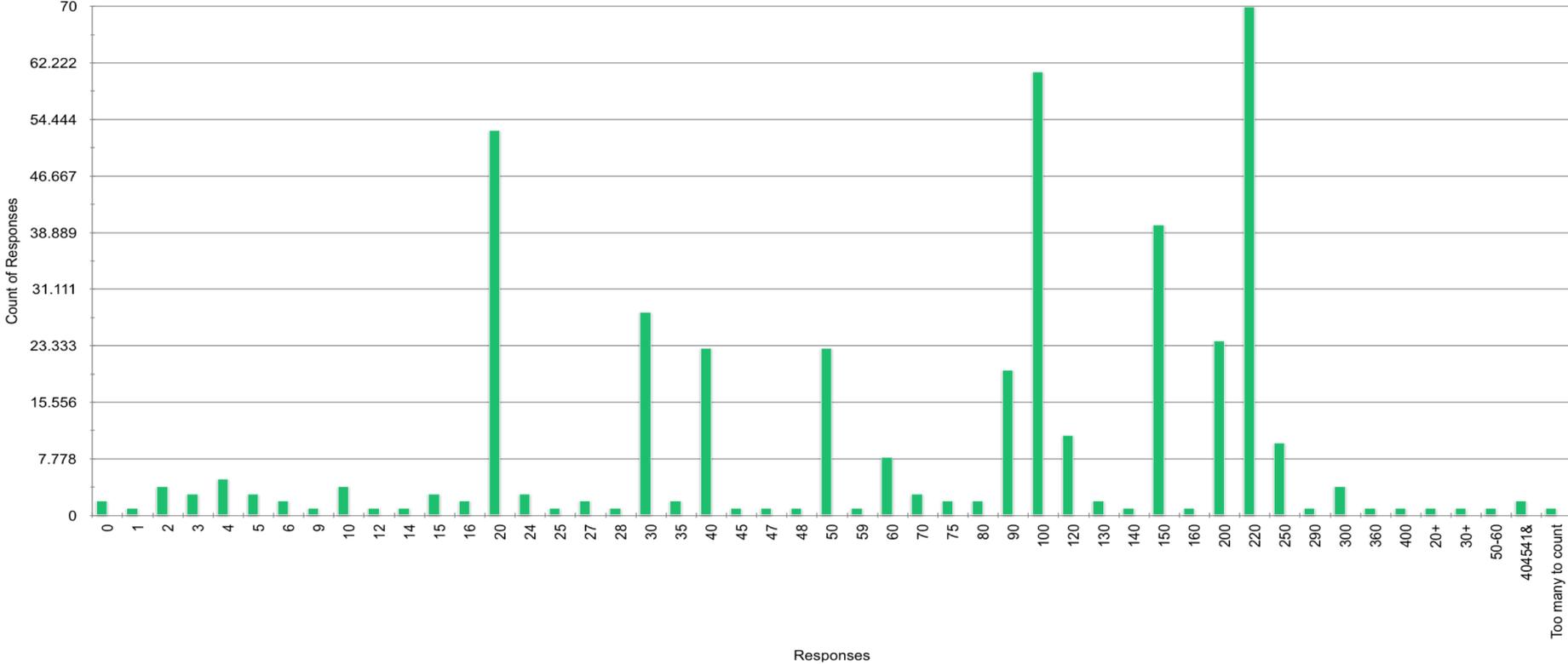
# Q13: Including yourself, how many people live in your household?

Answered: 604 Skipped: 204



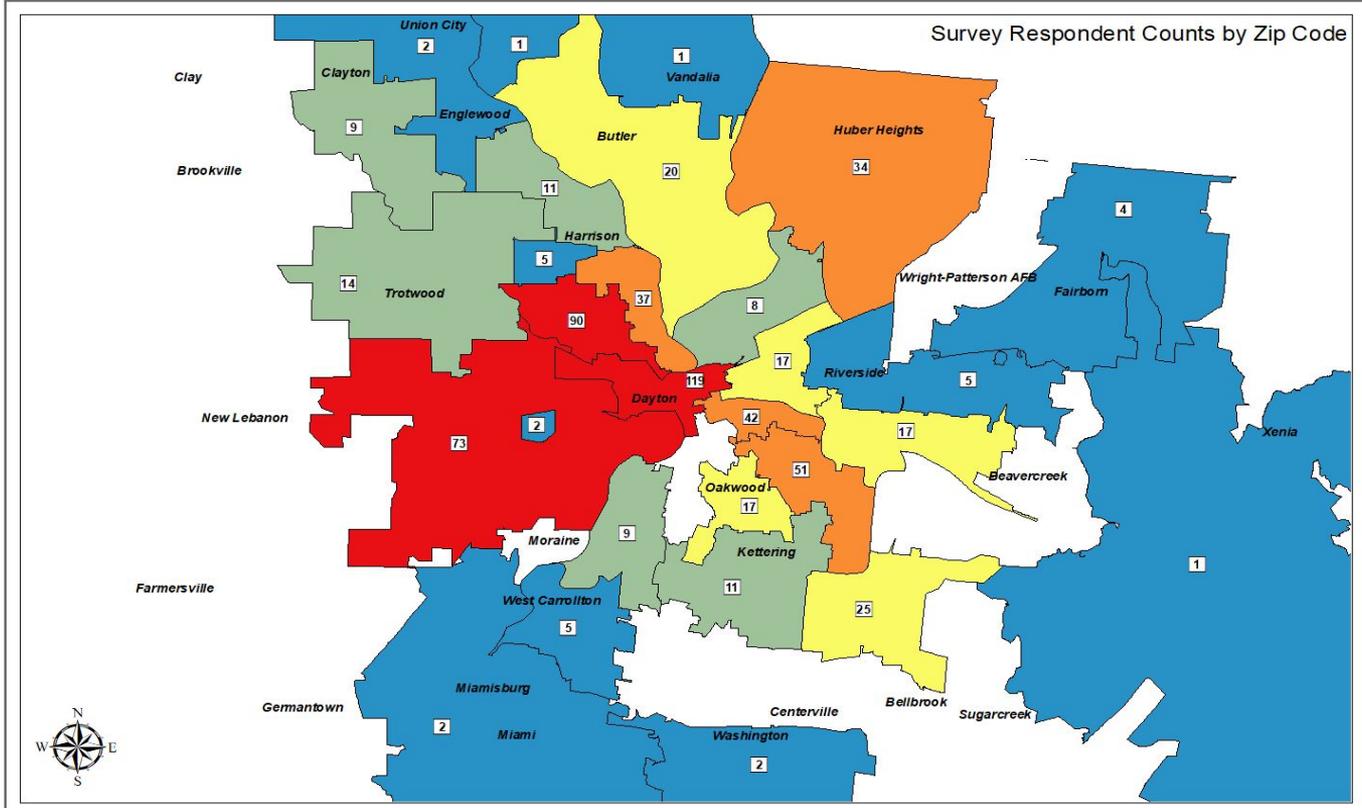
# Q14: How many trips have you taken on RTA in the last month?

Answered: 377 Skipped: 431



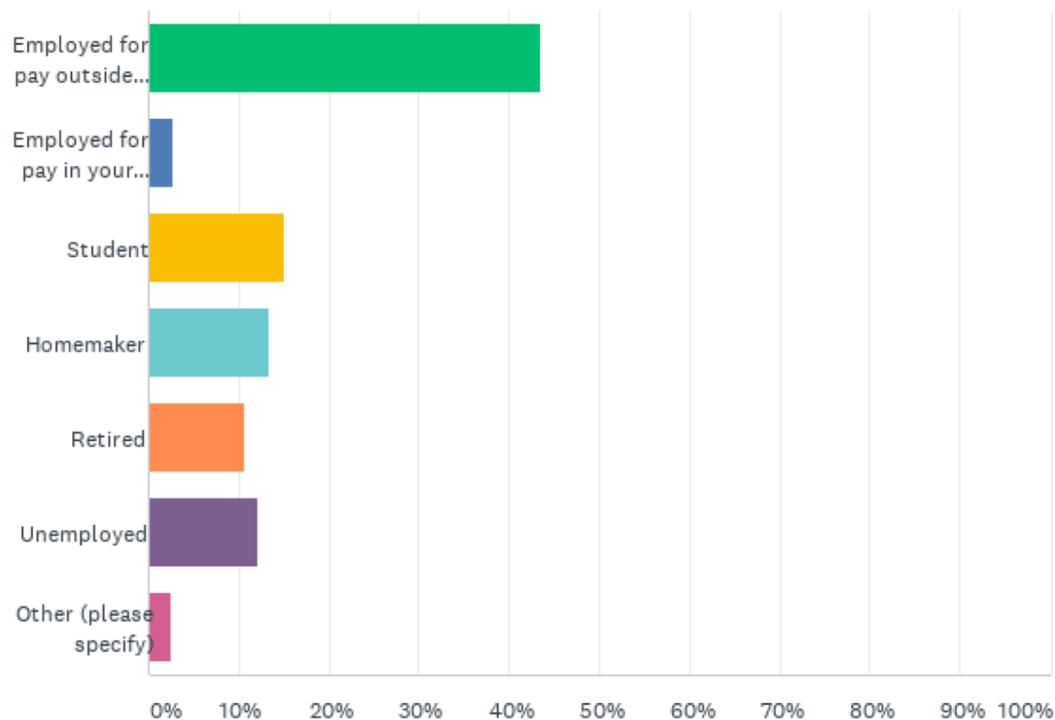
# Q15: What is the zip code of your house?

Answered: 664 Skipped: 144



## Q16: Which applies to you presently?

Answered: 789 Skipped: 19



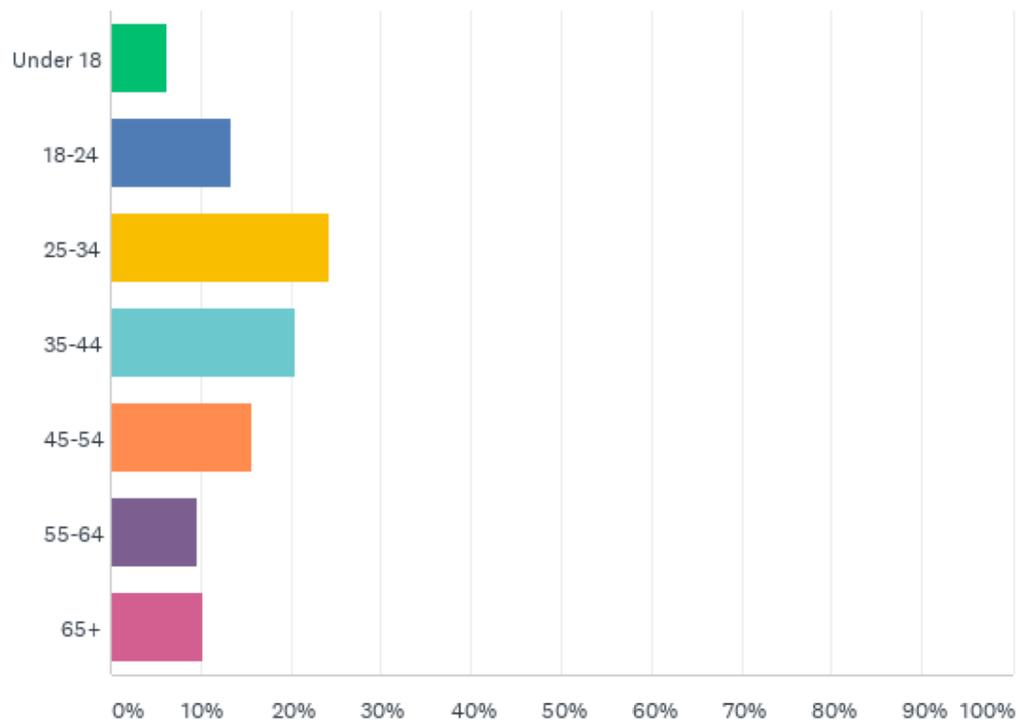
## Q16: Which applies to you presently?

Answered: 789 Skipped: 19

ANSWER CHOICES	RESPONSES	
Employed for pay outside your home	43.60%	344
Employed for pay in your home	2.66%	21
Student	15.08%	119
Homemaker	13.43%	106
Retired	10.77%	85
Unemployed	12.04%	95
Other (please specify)	2.41%	19
TOTAL		789

## Q17: What is your age?

Answered: 777 Skipped: 31



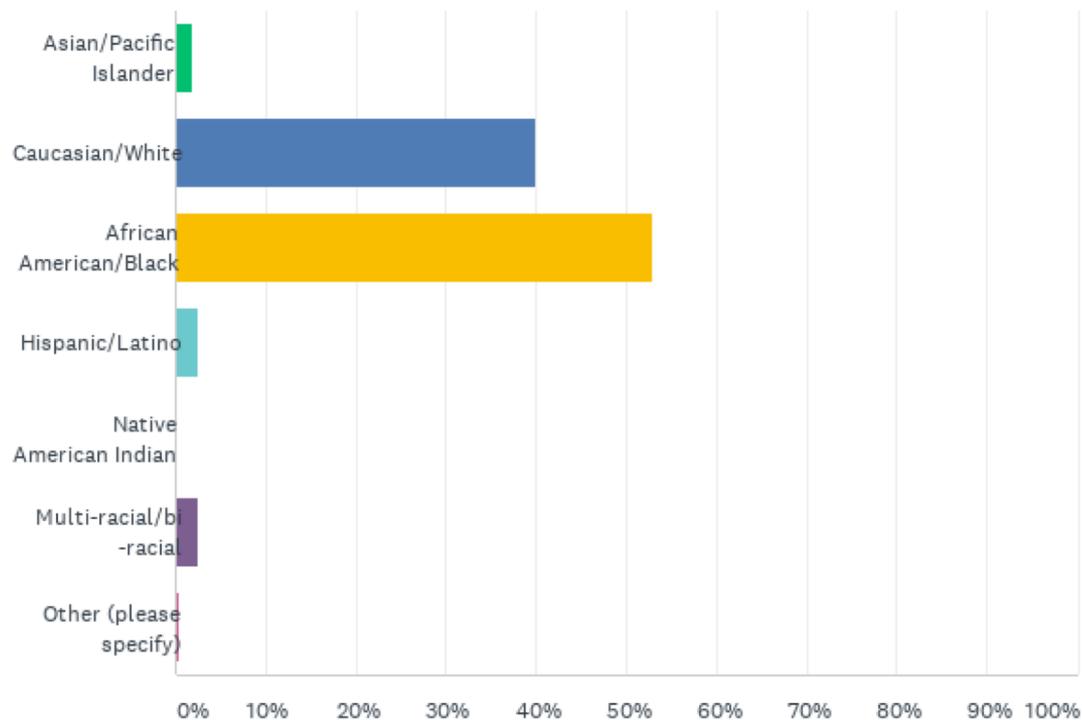
## Q17: What is your age?

Answered: 777 Skipped: 31

ANSWER CHOICES	RESPONSES	
Under 18	6.31%	49
18-24	13.38%	104
25-34	24.20%	188
35-44	20.46%	159
45-54	15.70%	122
55-64	9.65%	75
65+	10.30%	80
TOTAL		777

## Q18: Are you: (Check one)

Answered: 787 Skipped: 21



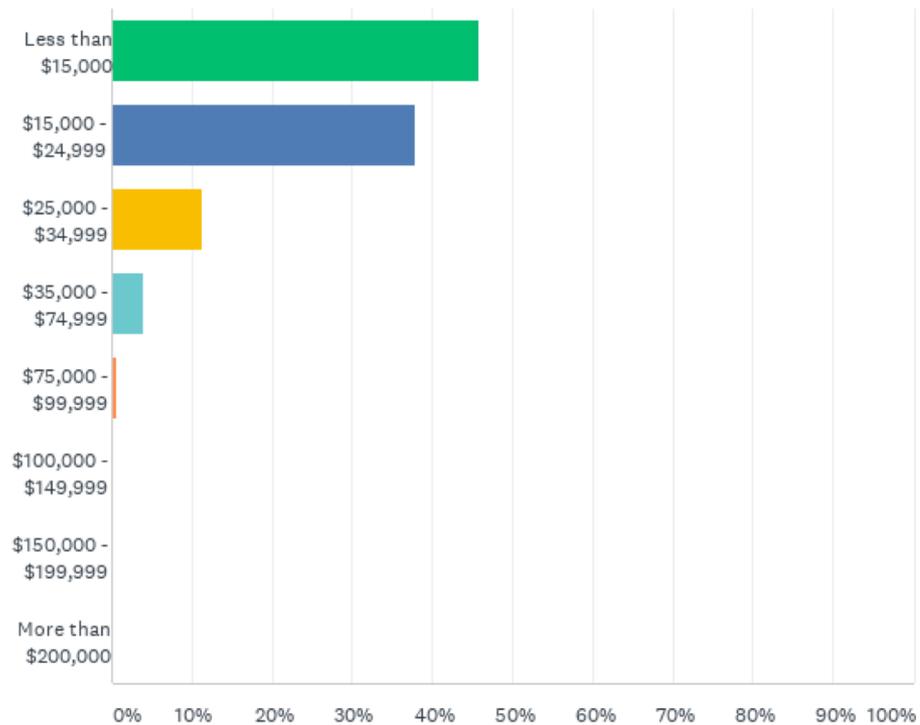
## Q18: Are you: (Check one)

Answered: 787 Skipped: 21

ANSWER CHOICES	RESPONSES	
Asian/Pacific Islander	1.78%	14
Caucasian/White	39.90%	314
African American/Black	52.86%	416
Hispanic/Latino	2.41%	19
Native American Indian	0.25%	2
Multi-racial/bi-racial	2.41%	19
Other (please specify)	0.38%	3
<b>TOTAL</b>		<b>787</b>

## Q19: What is your households annual income?

Answered: 738 Skipped: 70



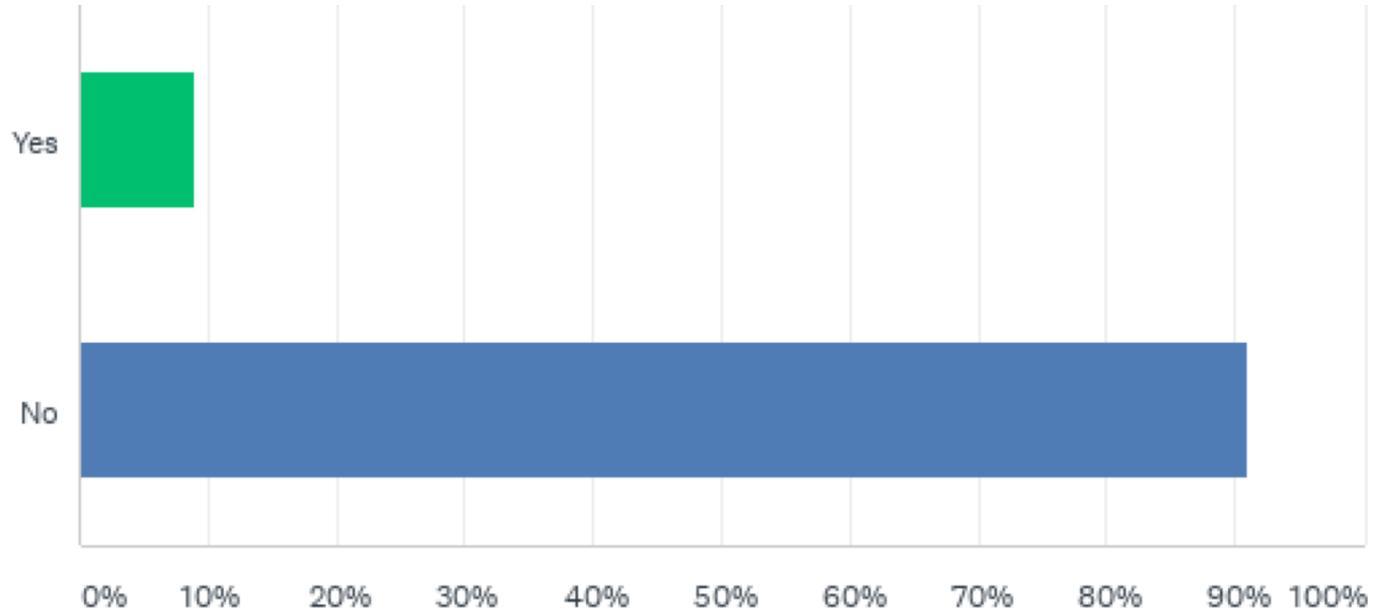
## Q19: What is your households annual income?

Answered: 738 Skipped: 70

ANSWER CHOICES	RESPONSES	
Less than \$15,000	45.80%	338
\$15,000 - \$24,999	37.80%	279
\$25,000 - \$34,999	11.25%	83
\$35,000 - \$74,999	3.93%	29
\$75,000 - \$99,999	0.68%	5
\$100,000 - \$149,999	0.27%	2
\$150,000 - \$199,999	0.27%	2
More than \$200,000	0.00%	0
TOTAL		738

## Q20: Do you speak a language other than English at home?

Answered: 759 Skipped: 49



## Q20: Do you speak a language other than English at home?

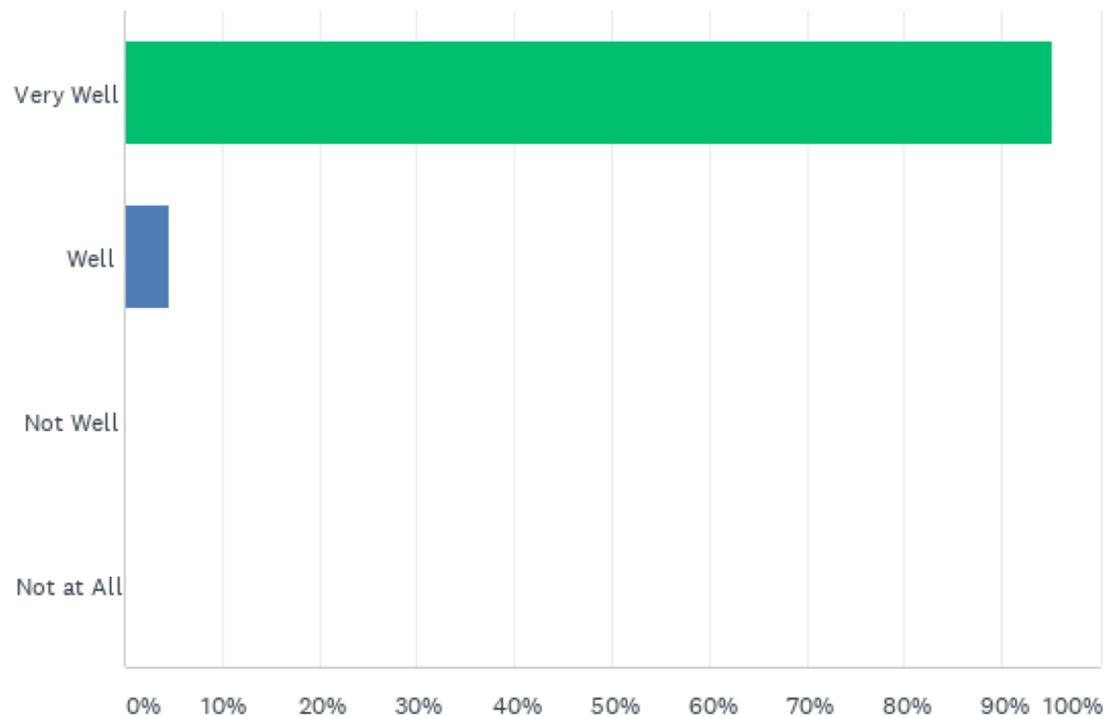
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Answered: 759 Skipped: 49

ANSWER CHOICES	RESPONSES	
Yes	8.96%	68
No	91.04%	691
TOTAL		759

## Q21: How well do you speak English?

Answered: 798 Skipped: 10



## Q21: How well do you speak English?

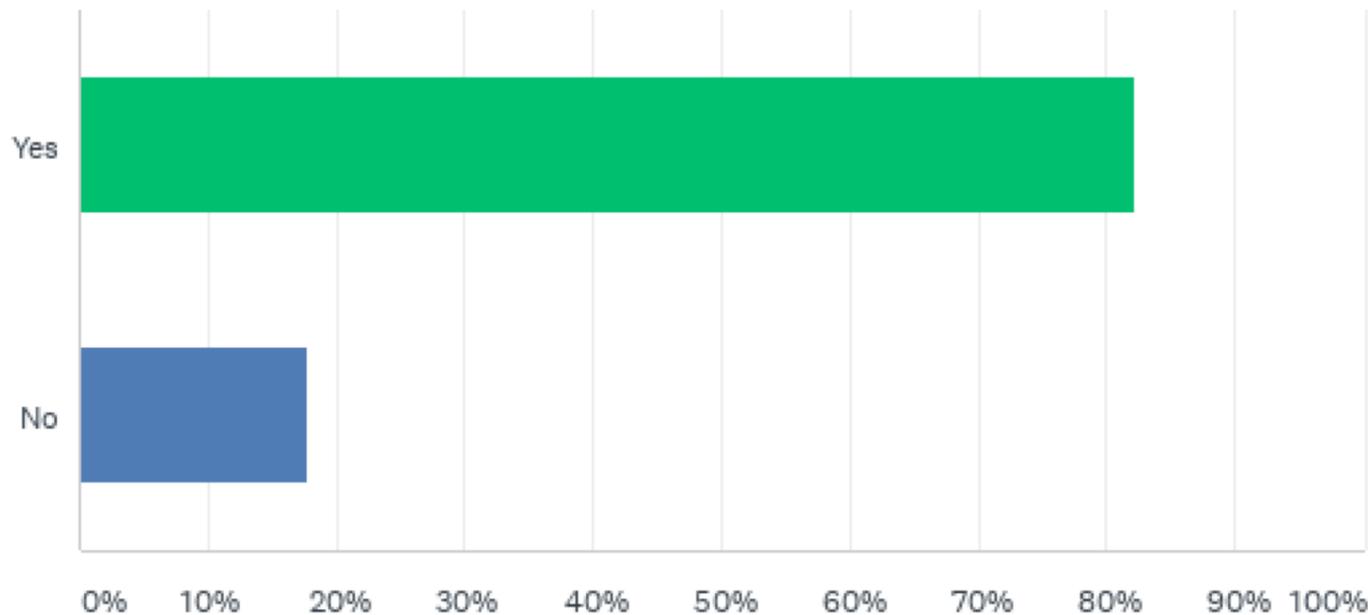
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Answered: 798 Skipped: 10

ANSWER CHOICES	RESPONSES	
Very Well	95.24%	760
Well	4.64%	37
Not Well	0.13%	1
Not at All	0.00%	0
TOTAL		798

## Q22: Do you own a smartphone?

Answered: 796 Skipped: 12



## Q22: Do you own a smartphone?

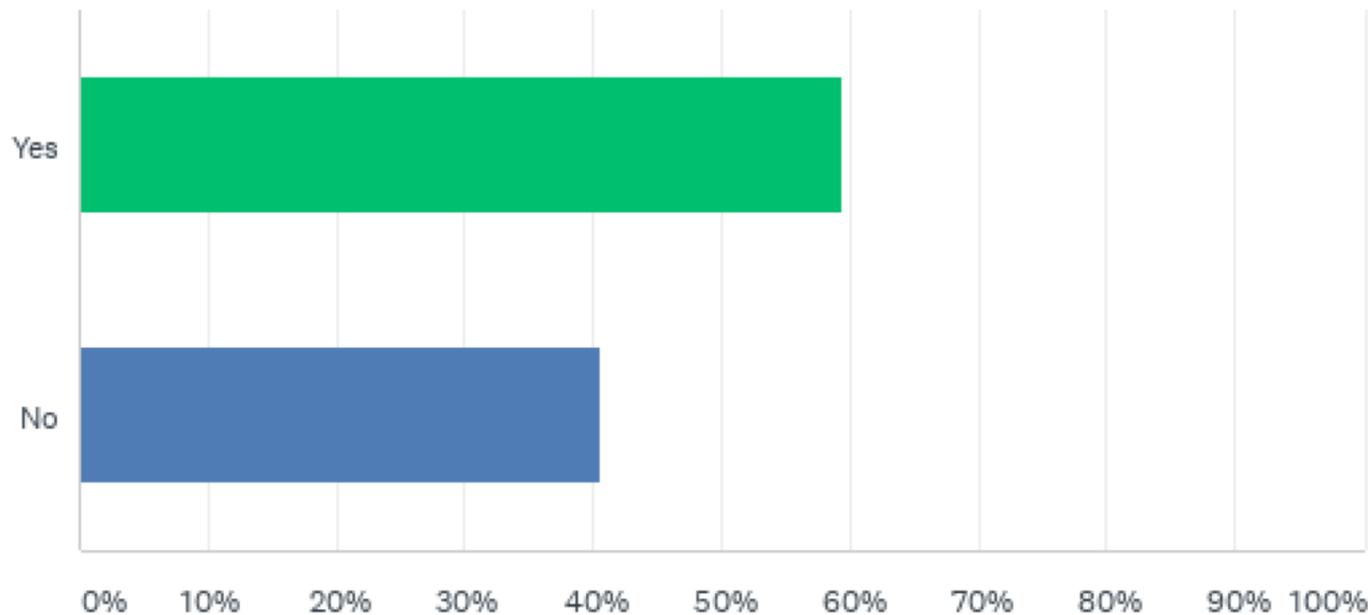
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Answered: 796 Skipped: 12

ANSWER CHOICES	RESPONSES	
Yes	82.16%	654
No	17.84%	142
TOTAL		796

## Q23: Do you use the Transit App?

Answered: 794 Skipped: 14



## Q23: Do you use the Transit App?

---

Answered: 794 Skipped: 14

ANSWER CHOICES	RESPONSES	
Yes	59.45%	472
No	40.55%	322
TOTAL		794

# ***Appendix B***

**Sign-In Sheet**

**Public Hearing – Payment System Upgrade  
April 12, 2021**

**8:00 a.m.**

Please **print** your full name on the lines below. Thank you.

**Print Full Name Please**

DAVID J SCHMUTZ

Melody Burba - ACIL

Jon Childers

**Greater Dayton Regional Transit Authority**

4 S. Main Street Dayton, OH 45402 • 937-426-8400 P • 937-426-8416 F • [www.iniderta.org](http://www.iniderta.org)





Sign-In Sheet

Public Hearing – Payment System Upgrade  
April 12, 2021

8:00 a.m.

Please **print** your full name on the lines below. Thank you.

Print Full Name Please

SUSAN PETERS

DEBRA ESTES

Greater Dayton Regional Transit Authority

4 S. Main Street Dayton, OH 45402 • 937-426-8400 P • 937-426-8416 F • [www.inderta.org](http://www.inderta.org)



**Sign-In Sheet**

**Public Hearing – Payment System Upgrade  
April 12, 2021**

**5:30 p.m.**

Please **print** your full name on the lines below. Thank you.

**Print Full Name Please**

Lynette Marlin  
TERI SCHUCH  
Kitty Hooper  
James Saleem Ibn Muhammad  
Jermaine Tinsley

**Greater Dayton Regional Transit Authority**

4 S. Main Street Dayton, OH 45402 • 937-426-8400 P • 937-426-8416 F • [www.inderta.org](http://www.inderta.org)





## Greater Dayton Regional Transit Authority

### Fare Payment Changes Comment Sheet – April 12, 2021

If there are any comments you would like to share with us please let us know. If you wish to receive a follow-up to your comments, please give us your address or e-mail. Thank you again for attending today's forum.

Name – Optional Kitty Hooper

Address – Optional \_\_\_\_\_

Email – Optional kittyahooper@gmail.com

Thank you for explaining this process to us.

Although it was very informative, I don't have any

questions or comments at the moment. As I use the

new system, I will probably email with any

suggestions or concerns that I may have going

forward.

Again, thank you for having this meeting and inviting  
us.

**Use back of this sheet if necessary**

-Kitty Hooper

## Greater Dayton Regional Transit Authority

### Fare Payment Changes Comment Sheet – April 12, 2021

If there are any comments you would like to share with us please let us know. If you wish to receive a follow-up to your comments, please give us your address or e-mail. Thank you again for attending today's forum.

Name – Optional \_\_\_\_\_

Address – Optional \_\_\_\_\_

Email – Optional \_\_\_\_\_

Route 2 Westbound Huffman to Jersey, Doesn't announce  
Jersey + Sth repeats the same stops

\*Suggestion to audit the announcements periodically.

**Use back of this sheet if necessary**

# ***Appendix C***

# GDRTA Remix Title VI Analysis (v2.0)

Methodology & Data Sources:

<http://remix.com/title-vi>

After: Title VI 2021

<https://platform.remix.com/map/002029bf>

*This spreadsheet has three tabs of information:*

"Title VI Analysis" contains our full Census-based analysis, using the methodology above.

"Census Block Groups" has a breakdown of every block group in the service area. You can use this data to run your own preferred methodology.

"Service Area" shows a brief summary of the full service area used in the analysis.

*Our analysis depends on two assumptions set for your team:*

"Low Income" is defined as 150% of the Census-defined poverty rate

"Service Area" is a fixed set of Census blocks groups from a shapefile your team provided us.

### GDRTA Title VI Remix Analysis

Route	(Inbound)				(Outbound)			
	Population (within 1/4)	Low Income	Minority	Trips (Annually)	Population (within 1/4)	Low Income	Minority	Trips (Annually)
01 Route 1 (A)	16,244	49.7%	45.2%	6,699	17,200	47.3%	43.9%	5,418
01 Route 1 (B)	16,274	49.3%	45.2%	3,121	16,759	48.5%	44.2%	5,217
01 Route 1 (C)	6,017	60.6%	77.8%	1,942	5,861	60.8%	78.0%	1,381
01 Route 1 (D)	10,786	43.4%	26.7%	926	11,897	40.6%	26.9%	254
01 Route 1 (E)	10,816	42.9%	26.7%	762	11,457	42.1%	26.6%	566
02 Route 2 (A)	27,593	39.9%	47.9%	9,661	27,216	39.7%	48.0%	10,116
02 Route 2 (B)	12,471	41.2%	79.6%	1,381	12,297	40.7%	79.9%	1,180
02 Route 2 (C)	15,680	38.9%	22.3%	1,127	15,477	38.9%	22.3%	672
02 Route 2 (D)	27,675	39.9%	47.9%	254	0			0
03 Route 3	13,923	36.2%	19.0%	762	14,275	37.6%	19.4%	762
04 Route 4 (A)	18,267	52.8%	51.5%	10,222	18,377	53.1%	52.4%	7,960
04 Route 4 (B)	0			0	17,275	52.9%	50.4%	2,262
04 Route 4 (C)	8,269	54.0%	84.1%	1,180	8,411	54.7%	85.5%	1,069
04 Route 4 (D)	10,556	51.5%	25.2%	873	10,523	51.4%	25.2%	873
04 Route 4 (E)	0			0	7,310	54.4%	85.7%	365
05 Route 5 (A)	14,097	19.5%	11.9%	254	14,384	19.4%	11.8%	254
05 Route 5 (B)	18,003	26.1%	14.7%	254	17,908	24.5%	14.2%	254
05 Route 5 (C)	0			0	4,404	40.0%	26.8%	254
05 Route 5 (D)	4,477	42.4%	26.6%	254	0			0
07 Route 7 (A)	25,350	41.2%	39.6%	14,308	25,662	40.8%	39.1%	14,763
07 Route 7 (B)	10,315	44.6%	69.8%	1,688	0			0
07 Route 7 (C)	15,606	38.8%	19.6%	508	16,022	38.3%	19.5%	1,180
07 Route 7 (D)	0			0	10,519	45.0%	68.9%	1,233
07 Route 7 (E)	13,104	37.4%	18.8%	1,127	0			0
08 Route 8 (A)	17,483	47.9%	78.6%	13,144	17,510	48.2%	78.6%	13,144
08 Route 8 (B)	12,519	40.0%	74.6%	1,434	12,427	40.1%	74.5%	1,434
08 Route 8 (C)	4,218	69.7%	94.6%	418	4,280	69.4%	94.7%	365
08 Route 8 (D)	5,649	65.3%	82.7%	762	5,641	65.8%	83.8%	815
09 Route 9 (A)	19,205	49.4%	85.2%	3,810	20,188	49.0%	84.5%	3,048
09 Route 9 (B)	19,529	49.7%	85.3%	3,302	19,878	48.7%	84.4%	3,302
09 Route 9 (C)	19,114	49.4%	85.3%	477	20,108	49.0%	84.5%	1,292
09 Route 9 (D)	16,915	48.5%	84.9%	623	17,739	46.4%	84.8%	623
09 Route 9 (E)	16,564	48.1%	84.8%	623	18,045	46.7%	84.9%	570
09 Route 9 (F)	19,448	49.7%	85.4%	731	19,803	48.7%	84.4%	985
09 Route 9 (G)	19,021	49.3%	85.5%	762	19,343	48.3%	84.5%	762
09 Route 9 (H)	18,670	49.0%	85.3%	762	19,649	48.6%	84.6%	508
09 Route 9 (I)	11,998	43.1%	83.1%	365	0			0
09 Route 9 (J)	0			0	5,511	57.4%	91.2%	111
09 Route 9 (K)	8,121	59.4%	83.2%	254	7,984	59.2%	83.3%	254
09 Route 9 (L)	5,537	60.2%	80.4%	58	0			0
09 Route 9 (M)	7,770	59.1%	82.8%	53	0			0
09 Route 9 (N)	0			0	19,869	48.8%	84.5%	254
09 Route 9 (O)	0			0	12,223	41.7%	83.4%	58
09 Route 9 (P)	0			0	12,542	42.3%	83.4%	53
11 Route 11 (A)	25,303	30.1%	18.5%	4,086	28,425	29.4%	17.9%	3,885
11 Route 11 (B)	15,397	20.7%	12.9%	360	15,597	20.8%	12.8%	561
11 Route 11 (C)	25,412	30.1%	18.6%	508	28,495	29.4%	17.9%	508
11 Route 11 (D)	10,464	42.2%	27.9%	307	0			0
11 Route 11 (E)	0			0	13,707	38.5%	24.8%	508
12 Route 12 (A)	30,754	35.4%	36.7%	8,952	29,177	38.1%	43.7%	8,952
12 Route 12 (B)	10,232	44.9%	73.5%	1,180	12,429	43.9%	75.3%	926
12 Route 12 (C)	21,081	30.9%	18.8%	619	17,313	33.9%	20.9%	873
12 Route 12 (D)	4,814	18.7%	12.3%	58	0			0
14 Route 14 (A)	38,102	28.6%	40.3%	2,809	37,833	29.7%	41.2%	3,513
14 Route 14 (B)	38,747	29.2%	41.0%	2,677	37,180	29.2%	40.4%	1,206
14 Route 14 (C)	21,960	18.0%	13.5%	508	21,959	18.8%	13.4%	873
14 Route 14 (D)	15,661	41.3%	78.8%	619	0			0
14 Route 14 (E)	16,306	41.8%	79.0%	1,016	0			0
14 Route 14 (F)	23,042	18.3%	14.0%	614	0			0
14 Route 14 (G)	0			0	16,753	41.7%	77.4%	1,016

14 Route 14 (H)	0			0	36,957	29.8%	41.5%	762
14 Route 14 (I)	0			0	16,100	41.2%	77.1%	370
14 Route 14 (J)	37,019	28.8%	40.7%	254	36,304	29.3%	40.7%	508
16 Route 16 (A)	36,044	29.9%	29.4%	2,491	35,618	30.0%	30.6%	2,491
16 Route 16 (B)	35,971	29.9%	29.4%	2,032	35,575	30.0%	30.6%	1,524
16 Route 16 (C)	22,183	29.0%	16.9%	1,127	21,232	29.0%	17.6%	873
16 Route 16 (D)	36,665	29.6%	27.4%	1,270	33,966	30.7%	30.2%	508
16 Route 16 (E)	0			0	15,222	32.0%	49.2%	1,127
16 Route 16 (F)	14,347	31.3%	49.1%	873	0			0
16 Route 16 (G)	0			0	35,288	29.9%	30.7%	762
16 Route 16 (H)	14,419	31.2%	48.9%	508	0			0
16 Route 16 (I)	0			0	20,902	29.0%	17.6%	508
16 Route 16 (J)	35,387	29.7%	29.2%	254	34,050	30.9%	31.3%	254
16 Route 16 (K)	15,040	30.4%	43.4%	254	0			0
16 Route 16 (L)	19,886	30.6%	16.9%	254	0			0
16 Route 16 (M)	0			0	33,922	30.7%	30.2%	254
16 Route 16 (N)	0			0	13,613	33.9%	50.3%	254
16 Route 16 (O)	0			0	34,132	30.6%	29.8%	254
16 Route 16 (P)	0			0	13,569	34.0%	50.5%	254
17 Route 17 (A)	34,538	24.4%	16.4%	2,650	34,861	24.6%	16.5%	3,216
17 Route 17 (B)	34,975	24.3%	16.4%	2,106	35,970	24.4%	16.5%	1,143
17 Route 17 (C)	35,868	24.2%	16.3%	1,238	34,703	24.7%	16.6%	619
17 Route 17 (D)	26,072	20.8%	14.4%	1,127	26,325	21.0%	14.5%	873
17 Route 17 (E)	9,025	33.5%	23.5%	1,074	0			0
17 Route 17 (F)	0			0	37,008	24.2%	16.2%	1,016
17 Route 17 (G)	9,462	32.8%	23.2%	561	0			0
17 Route 17 (H)	0			0	9,257	34.9%	24.5%	365
17 Route 17 (I)	0			0	10,525	33.0%	23.1%	508
17 Route 17 (J)	0			0	9,416	34.5%	24.0%	508
17 Route 17 (K)	34,191	24.5%	16.5%	53	35,150	24.5%	16.5%	53
17 Route 17 (L)	0			0	10,295	32.9%	22.5%	254
18 Route 18 (A)	28,855	27.2%	22.9%	4,269	29,741	27.1%	22.8%	2,433
18 Route 18 (B)	28,964	27.3%	22.9%	2,286	29,897	27.3%	22.7%	3,048
18 Route 18 (C)	13,901	27.5%	18.2%	1,127	14,657	26.8%	18.0%	873
18 Route 18 (D)	15,512	27.3%	27.7%	1,127	0			0
18 Route 18 (E)	0			0	15,963	28.2%	28.0%	873
18 Route 18 (F)	0			0	29,568	27.1%	22.9%	312
18 Route 18 (G)	0			0	29,724	27.3%	22.8%	508
18 Route 18 (H)	0			0	14,505	26.8%	18.1%	254
18 Route 18 (I)	0			0	16,119	28.5%	27.8%	254
19 Route 19 (A)	26,124	27.8%	26.9%	5,793	25,476	28.0%	26.9%	6,047
19 Route 19 (B)	13,149	32.3%	27.8%	1,381	13,141	32.4%	27.9%	1,635
19 Route 19 (C)	13,534	23.8%	26.5%	1,381	12,893	23.9%	26.3%	873
19 Route 19 (D)	10,970	36.0%	28.1%	53	0			0
19 Route 19 (E)	26,185	27.9%	26.9%	254	0			0
22 Route 22 (A)	4,792	45.0%	27.9%	2,531	5,222	42.5%	26.9%	2,023
22 Route 22 (B)	5,907	47.0%	35.2%	2,794	6,327	44.8%	33.8%	2,794
22 Route 22 (C)	7,671	51.0%	46.0%	1,270	8,106	49.1%	44.5%	1,524
22 Route 22 (D)	10,478	52.4%	56.7%	1,016	10,180	50.2%	53.9%	1,016
22 Route 22 (E)	3,437	58.8%	70.1%	508	0			0
22 Route 22 (F)	0			0	5,543	43.3%	27.4%	508
22 Route 22 (G)	5,206	46.2%	28.8%	254	0			0
22 Route 22 (H)	0			0	8,013	49.1%	44.1%	254
23 Route 23 (A)	26,752	21.0%	13.8%	2,286	26,742	20.7%	13.7%	1,270
23 Route 23 (B)	27,239	20.8%	13.7%	1,016	26,660	20.8%	13.8%	1,016
23 Route 23 (C)	27,151	20.9%	13.7%	254	27,059	20.6%	13.7%	1,016
23 Route 23 (D)	26,840	20.9%	13.7%	508	27,141	20.5%	13.7%	508
24 Route 24 (A)	20,392	34.4%	55.4%	2,560	20,833	34.5%	55.6%	2,502
24 Route 24 (B)	20,456	34.4%	55.5%	1,095	20,992	34.5%	55.8%	534
24 Route 24 (C)	20,418	34.4%	55.4%	1,122	21,020	34.5%	55.8%	815
24 Route 24 (D)	20,548	34.6%	55.4%	169	21,164	34.7%	55.8%	58
24 Route 24 (E)	20,383	34.7%	55.3%	53	20,861	34.5%	55.6%	561
24 Route 24 (F)	21,096	34.6%	54.3%	508	21,559	34.4%	54.7%	508
24 Route 24 (G)	0			0	21,033	34.7%	55.6%	360
24 Route 24 (H)	0			0	21,005	34.7%	55.6%	312

24 Route 24 (I)	0			0	10,011	35.4%	78.0%	111
24 Route 24 (J)	2,725	16.5%	44.4%	254	2,581	16.8%	45.6%	254
24 Route 24 (K)	20,482	34.4%	55.5%	53	21,192	34.7%	55.8%	53
24 Route 24 (L)	20,574	34.6%	55.4%	254	21,572	34.7%	54.5%	254
24 Route 24 (M)	10,851	37.0%	77.7%	53	0			0
24 Route 24 (N)	11,142	36.3%	38.4%	58	0			0
24 Route 24 (O)	17,965	37.3%	57.5%	254	0			0
24 Route 24 (P)	0			0	11,496	35.9%	38.2%	53
24 Route 24 (Q)	0			0	21,543	34.7%	54.5%	254
34 Route 34 (A)	5,245	41.5%	57.6%	8,128	5,362	39.4%	58.2%	6,350
34 Route 34 (B)	5,332	41.6%	56.8%	1,549	5,448	39.5%	57.3%	1,337
34 Route 34 (C)	0			0	5,415	39.1%	57.7%	1,778
34 Route 34 (D)	0			0	5,501	39.2%	56.9%	265
43 Route 43 (A)	1,553	32.7%	34.9%	952	1,449	31.7%	34.1%	280
43 Route 43 (B)	3,804	21.4%	19.6%	254	3,738	20.8%	17.4%	762
43 Route 43 (C)	3,801	21.5%	19.5%	508	3,727	20.9%	17.4%	508
43 Route 43 (D)	1,545	32.9%	35.0%	254	1,408	32.7%	34.9%	508
43 Route 43 (E)	0			0	1,457	31.5%	33.9%	508
43 Route 43 (F)	3,752	21.7%	19.7%	254	1,546	31.1%	32.0%	254
43 Route 43 (G)	2,182	26.8%	25.3%	254	1,994	26.3%	25.4%	254
43 Route 43 (H)	3,774	21.6%	19.7%	254	3,671	21.1%	17.6%	254
43 Route 43 (I)	1,535	33.1%	35.2%	254	1,457	31.5%	33.9%	254
43 Route 43 (J)	1,536	33.1%	35.2%	53	1,399	32.8%	35.1%	53
43 Route 43 (K)	1,619	32.4%	33.5%	254	3,704	21.0%	17.5%	254
43 Route 43 (L)	1,571	32.3%	34.6%	53	1,434	32.0%	34.4%	53
43 Route 43 (M)	3,731	21.8%	19.8%	254	3,727	20.9%	17.4%	254
43 Route 43 (N)	1,518	33.5%	35.6%	254	1,450	31.6%	34.1%	254
43 Route 43 (O)	3,805	21.6%	18.3%	53	1,484	30.9%	33.4%	53
43 Route 43 (P)	3,751	21.7%	19.8%	254	0			0
43 Route 43 (Q)	3,757	21.7%	19.7%	254	0			0
43 Route 43 (R)	1,501	33.9%	35.9%	254	0			0
43 Route 43 (S)	1,628	32.2%	33.4%	254	0			0
43 Route 43 (T)	1,492	34.2%	36.1%	254	0			0
43 Route 43 (U)	0			0	1,598	30.0%	31.1%	53
43 Route 43 (V)	0			0	2,108	25.7%	24.0%	53
43 Route 43 (W)	0			0	2,694	16.9%	43.3%	254
55 Route 55 (A)	13,148	29.9%	10.6%	265	9,090	30.6%	10.9%	212
55 Route 55 (B)	0			0	12,526	32.7%	10.6%	53
64A Route 64 (A)	7,477	52.2%	70.1%	508	7,752	50.5%	70.4%	254
64A Route 64 (B)	0			0	6,127	50.5%	69.1%	254
64A Route 64 (C)	0			0	7,586	51.0%	71.0%	254
65 Route 65	9,799	42.5%	67.2%	508	9,413	43.8%	68.4%	508
66A Route 66 (A)	12,706	44.5%	25.3%	254	13,191	43.1%	24.5%	254
66A Route 66 (B)	9,725	43.8%	23.1%	254	0			0
66A Route 66 (C)	0			0	4,793	36.1%	24.2%	254
66A Route 66 (D)	0			0	10,819	42.1%	23.2%	254
FLYER Flyer	8,545	47.4%	16.3%	28,399	9,713	46.9%	16.3%	28,399
X1A Route X1a	1,605	39.6%	38.1%	254	1,366	33.7%	35.8%	254
X1B Route X1b	6,197	44.8%	35.8%	254	6,095	45.3%	33.5%	254
X5 Route X5 (A)	1,704	30.0%	31.2%	5,910	3,066	23.3%	32.3%	2,719
X5 Route X5 (B)	2,862	23.1%	30.2%	508	1,754	30.7%	35.6%	4,064
X5 Route X5 (C)	2,039	31.2%	32.4%	619	0			0
All Changes (both directions)	284,264	32.4%	35.7%	430,384				
				Low Income	Minority			
			Area Average	25.6%	29.3%			

**Census Block Groups in Service Area**

<b>Census ID</b>	<b>Population</b>	<b>Low Income</b>	<b>Minority</b>	<b>Trips</b>
391130404061	2597	3.7%	28.9%	0
391130201001	744	12.5%	4.0%	25548
391130213011	516	26.0%	7.4%	56183
391131201032	1893	37.0%	47.3%	28823
391130402042	2388	15.3%	12.9%	50548
391131601001	1017	4.1%	2.8%	0
391130503032	2286	25.9%	33.2%	34537
391130505021	1465	38.4%	8.8%	15110
391130704002	1383	46.2%	75.6%	14750
391131001013	2194	13.4%	22.1%	15110
390572101001	1029	32.9%	27.9%	23471
391131002031	2119	18.8%	18.2%	30220
391131301025	1088	7.8%	0.6%	0
391130017002	16	100.0%	0.0%	78704
391130025003	1256	22.5%	22.0%	21830
391130039002	865	48.2%	100.0%	60295
391130214001	857	33.7%	15.6%	27411
391130016002	1276	26.2%	34.0%	63736
391130033003	1598	29.8%	20.2%	68424
391130009002	732	57.8%	79.9%	68382
391130041001	869	83.8%	95.7%	53082
391130005004	858	26.2%	63.5%	86508
391130025002	751	20.8%	12.8%	54595
391130027001	569	25.0%	2.1%	32604
391130214003	904	20.2%	28.2%	52092
391130403033	1768	7.9%	9.6%	7874
391130404011	1905	0.6%	8.8%	21968
391130906002	1858	43.4%	8.6%	33273
391131002033	1168	12.0%	22.8%	30273
391131301012	1238	21.5%	7.7%	0
391130004003	721	26.9%	92.1%	45502
391130501012	2287	25.4%	25.1%	43118
391130506001	1654	36.5%	19.6%	15110
391130506002	471	11.9%	6.6%	0
391130909001	2224	9.6%	9.8%	21830
391131001012	1621	22.3%	13.3%	15110
391130704001	1376	58.3%	87.7%	14750
391130102008	758	4.2%	3.3%	28834
391130202001	741	4.1%	3.6%	31684
391130503023	2804	9.5%	9.0%	27500
391130215021	1869	34.1%	7.4%	43537
391130908002	683	31.6%	8.3%	21830
391131101001	1479	5.9%	5.9%	25402
391130402012	1361	5.7%	14.5%	27818
391131002013	1596	27.3%	10.8%	15110
391131652001	851	53.2%	82.6%	94625

Census ID	Population	Low Income	Minority	Trips
391130026003	754	43.9%	22.7%	31842
391130027002	455	30.8%	4.4%	64236
391130033001	1073	54.7%	45.5%	67662
391130024002	783	53.8%	34.1%	53672
391130805001	701	57.8%	1.9%	50755
391131001021	1712	8.3%	27.6%	15110
391130018002	2131	60.3%	18.2%	39408
391130032011	1492	38.6%	32.8%	49616
391130216022	1093	16.4%	4.0%	26965
391130602001	1734	65.7%	64.4%	25048
391131003012	853	25.0%	30.5%	15110
391130032012	729	34.4%	20.9%	49426
391130707002	1049	10.7%	79.0%	43906
390572001032	1627	12.9%	31.7%	22963
391130034041	539	84.9%	50.8%	386549
391130806001	703	28.2%	14.5%	31348
391130209001	679	40.5%	3.2%	14094
391130209004	831	24.2%	30.2%	14094
391130213013	850	15.1%	4.6%	56691
391130404052	1353	29.9%	19.4%	21968
391130705001	1266	42.6%	75.4%	14750
390572106011	3755	24.4%	25.9%	0
391130210002	917	9.6%	16.4%	42126
391130001001	777	43.1%	92.9%	79259
391130505022	1699	2.9%	26.8%	0
391130805006	1423	18.2%	25.2%	66119
391130804001	1375	39.7%	68.4%	67779
391130903044	611	53.0%	61.9%	15163
391130003003	771	67.6%	95.1%	35353
391131102022	2088	18.3%	27.7%	50755
391130025001	834	45.6%	5.8%	44793
391130031001	1047	52.1%	23.6%	49616
391130215011	572	10.1%	3.3%	33571
391130403022	1446	11.5%	8.8%	21598
391130701011	1323	59.2%	87.5%	14750
391130703002	783	52.1%	89.9%	23566
391130907001	1273	25.8%	19.6%	54595
391131001014	1096	50.5%	81.6%	15110
391130019006	974	68.9%	25.8%	67999
391130804002	1779	35.2%	68.2%	48372
391130023002	913	59.3%	30.0%	21830
391130501051	2234	9.0%	13.1%	43118
391130212001	1759	10.3%	17.2%	43200
391131650002	1639	30.1%	0.0%	0
391130206012	1113	9.4%	10.5%	29338
391130903022	910	51.5%	55.7%	15163
391130039003	376	23.4%	97.6%	46836

Census ID	Population	Low Income	Minority	Trips
391130026001	1589	54.2%	46.9%	55092
391131251022	1846	14.1%	28.3%	15364
391131251011	2366	15.7%	29.9%	12316
391131251012	2100	9.0%	16.4%	12316
391130019005	511	75.0%	36.4%	44528
391130024001	1800	30.4%	29.0%	44793
391130908001	728	23.9%	3.3%	21830
391130029003	607	28.3%	0.0%	59156
391130215012	1351	26.5%	41.0%	43200
391130204001	487	46.8%	14.8%	27818
391130031003	966	11.8%	15.3%	75282
391130208002	1419	18.7%	7.3%	14094
391130032013	1591	16.0%	9.1%	49616
391130102006	1169	4.5%	6.1%	28834
391130206022	993	2.6%	6.8%	28326
391130002002	674	49.0%	86.8%	35353
391130805002	558	50.2%	9.3%	31348
391130501031	964	0.0%	0.0%	2719
391130603001	770	50.9%	90.3%	48940
391130903024	646	20.9%	4.2%	15163
391131401002	883	0.0%	11.9%	0
391130015011	2540	39.4%	38.9%	385654
391130102002	625	3.3%	17.0%	58668
391130403051	3154	1.8%	17.6%	6862
391130404013	2103	21.1%	11.5%	35692
391130404032	2066	20.7%	16.6%	21598
391131251024	1096	41.5%	22.6%	15364
391130005002	381	32.7%	76.1%	86508
391130030002	1849	31.2%	15.6%	41284
391130211003	1160	19.4%	7.3%	56183
391130219001	1363	23.8%	11.2%	22730
391130402041	1467	34.4%	37.3%	49532
391130807001	878	45.9%	5.0%	50501
390572803002	1293	29.1%	38.6%	23471
391130027003	941	28.1%	20.0%	9398
391130203003	702	3.3%	0.0%	24256
391130216021	934	2.1%	2.4%	43537
391130301002	1299	22.9%	3.5%	59144
391130004002	898	37.3%	91.9%	89408
391130505041	2462	1.0%	11.4%	0
391130707003	1438	13.2%	79.8%	100232
391131004001	1519	27.3%	23.9%	15163
391130028001	832	14.1%	15.7%	5663
391130005005	682	29.0%	79.8%	67514
391130031002	908	27.2%	8.0%	75282
391130033005	1122	45.2%	17.7%	68742
391130401021	2025	5.2%	12.2%	0

Census ID	Population	Low Income	Minority	Trips
391130805004	668	67.8%	31.6%	15364
391130008013	547	56.7%	88.1%	63916
391130501032	1366	11.3%	32.0%	62526
391131102012	786	4.3%	3.9%	0
391130204002	2658	14.0%	33.4%	52074
391130002001	697	89.7%	84.2%	22910
391130903031	3428	6.0%	31.1%	15163
391131251021	1105	14.7%	14.0%	29077
391130702021	1308	69.7%	89.1%	71202
391130026006	1534	12.5%	6.2%	41284
391130404031	1977	7.2%	9.3%	21968
391130801002	2194	33.4%	93.2%	99057
391130213022	1114	15.4%	3.2%	19537
391130601001	1761	14.8%	16.1%	0
391131150112	1338	13.9%	1.6%	20042
391130026002	712	59.3%	0.0%	38133
391130038004	499	13.2%	100.0%	23058
391130211002	697	42.0%	2.7%	59156
391130404053	1791	10.2%	18.0%	21968
391130501041	1525	25.8%	12.7%	33775
391131301021	1419	2.7%	17.6%	0
391130505032	2148	15.7%	8.7%	15110
391131102011	2670	5.2%	11.1%	15364
391131201023	1585	5.0%	43.4%	12951
391131301024	1301	11.8%	3.2%	0
391130019001	582	55.7%	51.4%	81125
391130211004	648	31.6%	40.7%	36787
391131001011	1442	13.5%	36.5%	34517
391131004002	2220	4.2%	23.4%	15163
391131650003	1828	8.4%	2.0%	0
391130008011	955	45.4%	74.6%	41870
391131651002	1312	68.8%	83.8%	148764
391131501001	1462	14.1%	3.6%	0
391130503021	1282	22.5%	1.9%	1524
391130015012	1456	50.5%	29.5%	384892
391130035001	857	81.4%	100.0%	58670
391130043001	2002	67.8%	93.9%	85461
391130208001	929	3.1%	6.2%	28834
391130505042	3233	25.2%	29.8%	3227
391131001022	1692	6.8%	0.0%	30220
391130209003	492	11.6%	5.3%	14094
391130404063	1966	1.3%	24.2%	0
391130801003	451	31.7%	65.0%	89835
391130206011	706	17.0%	9.8%	32384
391130601002	1412	35.0%	74.7%	37840
391130018003	1924	28.4%	11.4%	37206
391130101002	696	1.1%	2.6%	14740

Census ID	Population	Low Income	Minority	Trips
391130010001	354	62.5%	57.6%	110434
391130026004	1035	73.6%	22.8%	31842
391130033002	683	38.7%	7.3%	33410
391130217001	1121	10.0%	6.2%	22730
391131201012	2852	3.9%	22.1%	12316
391130911001	1397	1.5%	19.2%	32765
391131250001	3027	15.7%	7.2%	1524
391130008022	760	52.6%	88.0%	53018
391130403061	1640	10.0%	24.6%	13724
391130201003	821	15.1%	16.3%	40912
391130701013	1526	38.9%	95.8%	0
391130906001	1828	44.1%	34.6%	10310
391130025004	531	29.8%	0.0%	52656
391130029002	1449	21.9%	6.1%	46185
391131650001	2822	16.9%	0.0%	0
391130009001	493	55.9%	44.8%	87016
391130034031	3450	85.9%	8.2%	101018
391130301001	1373	32.8%	46.6%	43118
391130807003	558	19.9%	0.0%	0
391131301023	1222	18.5%	2.9%	0
391130505031	1724	8.9%	4.9%	41965
391130701012	1744	27.6%	8.4%	14750
391130702011	1232	52.9%	39.0%	44717
391131501003	1765	5.5%	7.2%	0
391130101001	1396	1.9%	6.8%	96070
391130102001	821	10.2%	4.3%	96070
391131201031	1108	7.5%	15.8%	28315
391130046001	349	44.4%	100.0%	65996
391130806002	600	36.8%	2.8%	31348
391131651001	474	79.3%	100.0%	71016
391130046003	81	80.2%	100.0%	65996
391130006001	520	6.0%	98.3%	46518
391130011004	876	46.5%	91.0%	68382
391130020003	958	71.7%	29.4%	33273
391130501033	1802	1.1%	45.0%	13957
391130217002	1067	18.2%	8.8%	8382
391130033004	757	31.0%	26.2%	68424
391130034042	919	35.9%	18.4%	147550
391130503031	1686	44.2%	44.1%	27500
391130801004	2397	27.4%	75.0%	90371
391130216012	934	13.9%	8.4%	43537
391130403062	2000	6.3%	9.7%	6862
391130009004	906	53.1%	80.5%	103520
391130026005	656	11.9%	11.9%	43213
391130006002	969	50.3%	79.5%	87524
391130008012	2105	41.8%	87.1%	60700
391130019003	1055	51.8%	35.3%	55611

Census ID	Population	Low Income	Minority	Trips
391130022001	657	76.0%	47.6%	44126
391130034021	2843	64.0%	15.4%	178842
391130102007	1124	13.7%	9.3%	28834
391130203001	815	14.7%	13.3%	14740
391130209002	807	6.3%	11.0%	14094
391130403032	1594	18.2%	5.5%	7874
391130403034	1055	0.0%	6.5%	2794
391130503022	1321	47.8%	17.8%	27500
391130910002	1657	20.7%	4.6%	64236
391131003021	1558	27.4%	14.2%	15110
391130010002	788	54.7%	93.3%	137260
391131201021	1481	8.8%	17.2%	29331
390572106012	2454	3.0%	24.3%	0
391130038003	867	55.1%	96.2%	36517
391130003002	435	50.1%	96.6%	35353
391130215013	910	25.3%	15.8%	53362
391130008023	733	50.5%	85.8%	112288
391130017001	683	50.1%	19.5%	143801
391130505043	1211	42.8%	32.3%	2719
391130603003	1861	91.4%	59.8%	42465
391131301011	1187	14.4%	6.6%	0
391130007004	456	77.9%	100.0%	89408
391130402032	799	6.5%	9.9%	13840
391131102013	1099	10.4%	9.5%	0
391131601002	1094	11.7%	0.0%	0
391130035003	648	56.8%	77.0%	64417
391130102003	1072	7.3%	3.7%	48230
391130102004	730	4.4%	17.0%	38659
391130201002	1075	25.7%	14.6%	33484
391130504023	520	40.6%	1.2%	15110
391131001023	2670	9.6%	36.4%	15110
391131003013	1203	52.4%	35.1%	15163
391131401003	1819	37.1%	19.5%	0
391130403023	2614	23.0%	16.3%	21598
391130001002	1205	12.9%	95.7%	79259
391130012001	1045	53.6%	56.1%	115258
391130029004	1123	40.1%	1.7%	39760
391130504021	735	16.9%	17.6%	0
391131150022	2393	16.1%	6.6%	8824
391130002003	775	53.0%	87.6%	35353
391130202002	818	11.9%	16.5%	40912
391130504012	2534	11.5%	4.2%	15110
391130701022	1840	32.6%	91.6%	123290
390572101002	4301	10.2%	32.3%	22963
391130501034	1708	18.7%	25.0%	62526
391130207002	1330	3.8%	5.8%	32638
391130210001	846	16.5%	4.3%	22730

Census ID	Population	Low Income	Minority	Trips
391130903043	1901	10.4%	18.3%	0
391130403021	957	14.0%	20.6%	27818
391130403063	1324	0.0%	22.8%	0
391130504011	2472	6.2%	14.6%	27500
391130008021	659	51.1%	76.5%	63916
391130018001	2669	59.7%	31.4%	31289
391131251013	2945	7.5%	12.6%	15364
391130046002	956	71.1%	67.1%	118060
391130003001	712	36.9%	88.6%	79259
391130214002	801	7.1%	4.5%	38252
391130401031	2722	7.0%	4.8%	27818
391130603002	1699	18.8%	99.7%	26466
391130802003	642	31.6%	48.3%	67779
391130022004	381	63.8%	26.2%	55092
391131003011	2295	35.0%	18.8%	30273
391130025005	1469	45.9%	36.5%	64236
391130044002	431	71.2%	100.0%	111896
391130007003	681	34.4%	90.6%	66498
391130204004	1920	20.7%	22.9%	29458
391130903025	541	73.0%	40.3%	15163
391130011005	428	65.2%	90.4%	68382
391130207001	1877	19.9%	13.1%	38742
391130506003	1723	17.5%	1.2%	7682
391130807002	773	45.3%	9.4%	15984
391130504022	907	57.7%	7.9%	15110
391130005001	980	47.8%	85.7%	87524
391130020002	952	48.4%	42.3%	33273
391130903041	2458	6.7%	28.1%	15163
391131201022	1693	13.5%	42.2%	12951
391131250002	2272	14.2%	3.3%	3048
391131250003	916	25.7%	0.0%	3048
391130034043	635	41.1%	7.6%	146534
391130038001	267	71.2%	95.5%	46649
391130216011	1244	23.6%	16.9%	22730
391130042002	748	48.4%	94.5%	71113
391130501011	1800	17.6%	27.8%	48885
391130803002	878	60.3%	76.3%	42886
391130028002	1366	24.5%	3.2%	4901
391130219002	868	0.8%	6.1%	22730
391130706001	1210	27.6%	83.6%	123290
391130909002	1687	16.9%	11.5%	31632
391130403031	914	2.7%	12.4%	7874
391130404062	2363	8.0%	16.2%	13724
391130703001	758	43.3%	65.7%	35501
391130903042	1950	7.5%	15.0%	0
391131401001	2363	9.1%	0.0%	0
391131651003	619	77.1%	98.5%	99346

Census ID	Population	Low Income	Minority	Trips
391130007001	507	41.4%	96.3%	45502
391130703003	1235	57.5%	72.3%	65132
391130803001	1217	18.2%	74.3%	100249
391131002012	838	10.0%	29.8%	30220
391130211001	804	29.9%	44.7%	42126
391130702022	539	43.8%	97.4%	36517
391130203002	969	2.6%	8.6%	24648
391130204005	946	11.5%	4.2%	38742
391130302001	2959	30.0%	18.8%	12390
391130402031	1746	6.8%	13.3%	22222
391130001003	452	43.4%	97.8%	50103
391130005003	859	33.8%	94.8%	86508
391130705003	1866	39.1%	82.1%	14750
391130044003	816	75.9%	91.5%	111896
391130205001	1424	26.1%	19.4%	38742
391130802001	1091	27.7%	34.6%	66763
391130805005	1820	84.9%	81.8%	50755
391131150111	1876	20.7%	13.0%	11980
391131150121	3920	14.4%	10.6%	19481
391130035002	651	35.0%	100.0%	78606
391130042001	792	79.9%	100.0%	64255
391130801005	373	61.4%	87.1%	57365
391130102005	591	10.8%	0.0%	28834
391130206021	631	3.6%	4.3%	8382
391130404012	926	14.0%	12.7%	14094
391130501035	2650	14.3%	26.6%	3227
391130501052	2309	22.3%	15.4%	14348
391130402011	1383	4.8%	5.2%	14348
391130802002	917	9.4%	35.2%	16380
391131301022	1393	13.6%	11.1%	0
391131251023	2103	19.6%	28.5%	12316
391130903026	2971	14.6%	28.1%	26489
391130019002	624	50.6%	11.5%	114847
391130030003	433	22.7%	12.2%	83026
391130903023	1274	39.1%	26.5%	15163
391131002021	943	21.1%	46.8%	15110
391131150021	1667	15.7%	3.1%	14571
391130004001	1237	48.3%	93.9%	57945
391130019004	405	55.3%	16.5%	55611
391130038002	198	49.0%	100.0%	68560
391130404051	2079	17.5%	27.3%	21968
391130503012	1355	27.3%	8.0%	43118
391130044001	689	45.4%	91.1%	36517
391130023003	488	89.9%	36.9%	44020
391130202003	1329	20.4%	3.9%	29458
391130903021	632	30.4%	9.8%	30273
391131002011	2362	29.4%	58.6%	30220

Census ID	Population	Low Income	Minority	Trips
391130038005	392	61.5%	92.6%	45968
391131102021	1209	8.9%	6.5%	50755
391131150122	1567	18.4%	26.4%	19481
391130801001	622	38.9%	64.8%	71155
391130004004	939	41.2%	94.4%	109418
391130213012	1247	32.1%	2.5%	20412
391130503011	1348	26.4%	8.6%	1524
391130701021	1712	26.4%	60.6%	138654
391130020001	796	63.8%	26.8%	33273
391130039001	645	65.3%	90.4%	89054
391130030001	537	43.9%	6.5%	39760
391130707001	1111	63.5%	81.0%	123290
391131401004	910	12.3%	0.0%	0
391130011002	1034	64.8%	84.7%	47356
391130022002	517	46.4%	6.4%	76012
391130218001	2136	41.2%	23.1%	22730
391130401011	1066	12.5%	14.8%	27818
391130910001	782	21.4%	26.3%	31632
391131002032	1239	13.5%	29.7%	15110
391130009003	707	42.9%	72.0%	104606
391130501042	784	3.8%	7.5%	21968
391130401012	676	4.3%	6.8%	0
391131201011	2319	7.7%	31.3%	0
391131501004	904	7.7%	4.1%	0
391130204003	580	0.0%	0.0%	24256
390572001042	3995	75.7%	31.1%	22963
391130011001	882	21.5%	74.0%	48372
391130016001	811	30.0%	36.4%	50135
391130022003	1141	58.6%	35.5%	76012
391130041002	1206	61.4%	96.3%	57400
391130805003	633	47.4%	20.2%	50755
391130911002	1667	43.0%	50.7%	22963
391131002022	1404	8.4%	22.6%	15110
391131150113	1996	15.3%	2.3%	21111
391130505033	2458	12.9%	2.2%	0
391130402043	1209	4.6%	9.5%	21714
391130705002	886	40.4%	89.6%	14750
391130029001	925	24.9%	2.4%	9398
391131003022	1759	27.2%	21.0%	15163
391139800001	0			33273
391130011003	441	60.5%	78.2%	47356
391130023001	1718	46.5%	20.5%	55103
391130034022	4351	61.8%	10.6%	110926
391130213021	768	24.0%	7.9%	28344
391131501002	2173	17.3%	5.1%	0
391131652002	672	19.3%	23.7%	282018
391130042003	501	53.1%	100.0%	51812

<b>Census ID</b>	<b>Population</b>	<b>Low Income</b>	<b>Minority</b>	<b>Trips</b>
391130216023	1190	9.7%	21.3%	0
391130301003	1517	21.0%	17.7%	43118
391131004003	1223	17.2%	16.4%	30220
391130007002	511	38.4%	100.0%	68560
391130034032	130	43.8%	3.1%	50950

**GDRTA Service Area**

<b>Block Groups</b>	<b>Population</b>	<b>Low Income</b>	<b>Minority</b>	<b>Trips</b>
427	550,124	25.6%	29.3%	430384

## Rider Survey

1. What is the route number, your starting point, and your ending point of the bus you will be taking today (nearest intersection or address)?

Route #

Starting

Street/Cross

Street Name

Ending Street

/Cross Street

Name

2. Typically, how often do you ride an RTA Bus?

- A few times a month
- A few times a week
- Every day

3. Which days do you usually ride an RTA Bus?

- Daily
- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

4. What is the main purpose in using the bus for the trip?

- Work
- School (Middle or High)
- Shopping
- Social Service
- Social Visit
- Doctor or Medical Visit
- College

Other (please specify)

5. How many separate buses do you have to use to make this one-way trip to where you are going now?

- 1 Bus
- 2 Buses
- 3 or More

6. Do you have a vehicle you could have used to make this trip-either as the driver or passenger?

- Yes
- No

7. How did you pay for your most recent trip?

- Cash
- Tapp Pay
- Day Pass
- Reduced Day Pass
- Weekly Pass
- Monthly Pass
- Reduced Monthly Pass

8. If you are using a Day Pass, how many trips will you make on it today?

9. Where did you buy your fare for this trip?

- Cash
- Onboard the Bus
- Ticket Vending Machine
- RTA sales outlet
- Retail Store
- Transit/Mobile
- School or Place of Employment
- Social Service agency purchased for me
- Other (please specify)

10. Would you be comfortable using a reloadable fare card to pay for your trip?

- Yes
- No

11. Do you have a checking or savings account?

- Yes
- No

12. Do you have or use a pre-paid or regular debit or credit card?

- Yes (check all that apply)
- Pre-paid card
- Bank issued debit card
- Bank issues credit card
- No

13. Including yourself, how many people live in your household?

14. How many trips have you taken on RTA in the last month? (count each direction as 1 trip)

15. What is the zip code of your home?

16. Which applies to you presently?

- Employed for pay outside your home
- Employed for pay in your home
- Student
- Homemaker
- Retired
- Unemployed
- Other (please specify)

17. What is your age?

- Under 18
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

18. Are you: (Check one)

- Asian/Pacific Islander
- Caucasian/White
- African American/Black
- Hispanic/Latino
- Native American Indian
- Multi-racial/bi-racial
- Other (please specify)

19. What is your households annual income?

- Less than \$15,000
- \$15,000 - \$24,999
- \$25,000 - \$34,999
- \$35,000 - \$74,999
- \$75,000 - \$99,999
- \$100,000 - \$149,999
- \$150,000 - \$199,999
- More than \$200,000

20. Do you speak a language other than English at home?

- Yes
- No

if Yes (please specify)

21. How well do you speak English?

- Very Well
- Well
- Not Well
- Not at All

22. Do you own a smartphone?

- Yes
- No

23. Do you use the Transit App?

- Yes
- No

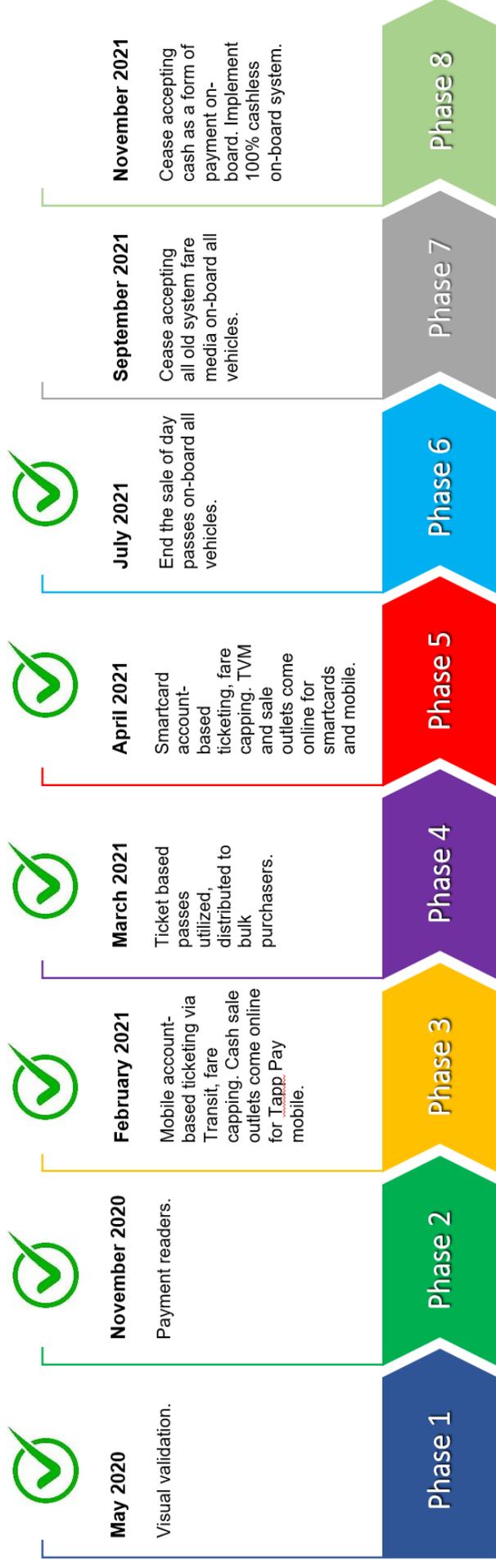
# ***Appendix D***



# July 2021 Report

## Project Schedule

Phase 1, 2, 3, 4, 5 & 6 completed. On schedule for Phases 7 & 8.



## Informational Items

- Close to 700, of over 1,600 active Connect Paratransit customers responded to the May mailing and received a promotional \$30 credit on their Tapp Pay card.
- Issued over 1,100 credits to customers who showed that they were fully vaccinated.
- Installed on every bus (see photo), decals on the farebox providing vital information and dates related to our journey to cashless on-board all vehicles.
- Press release was sent out announcing the ceasing of day pass sales on-board all buses beginning July 1.
- A series of information videos were produced to show customers how to use the Tapp Pay payment kiosks, app, and card.





# July 2021 Report



1:10

RTA Tapp Pay Payment Kiosks



0:55

RTA Tapp Pay using the Tapp Pay Card



1:28

RTA Tapp Pay using Transit app

NEWS WEATHER VIDEO SPORTS WORKING FOR YOU LIVING DAYTON PROGRAMMING

## RTA to stop selling day passes July 1

NO MASK - NO RIDE

LOOKING AHEAD  
RTA TO END SALE OF DAY PASSES STARTING THURSDAY, JULY 1

2 NEWS

Sections WHIO-TV 7 WHIO 10.5.21 WHIO

News • Video • Weather • Traffic • Sports • WHIO-TV • WHIO Radio • Dayton Gets Real • Coronavirus

WEATHER ALERT | Flash Flood Watch

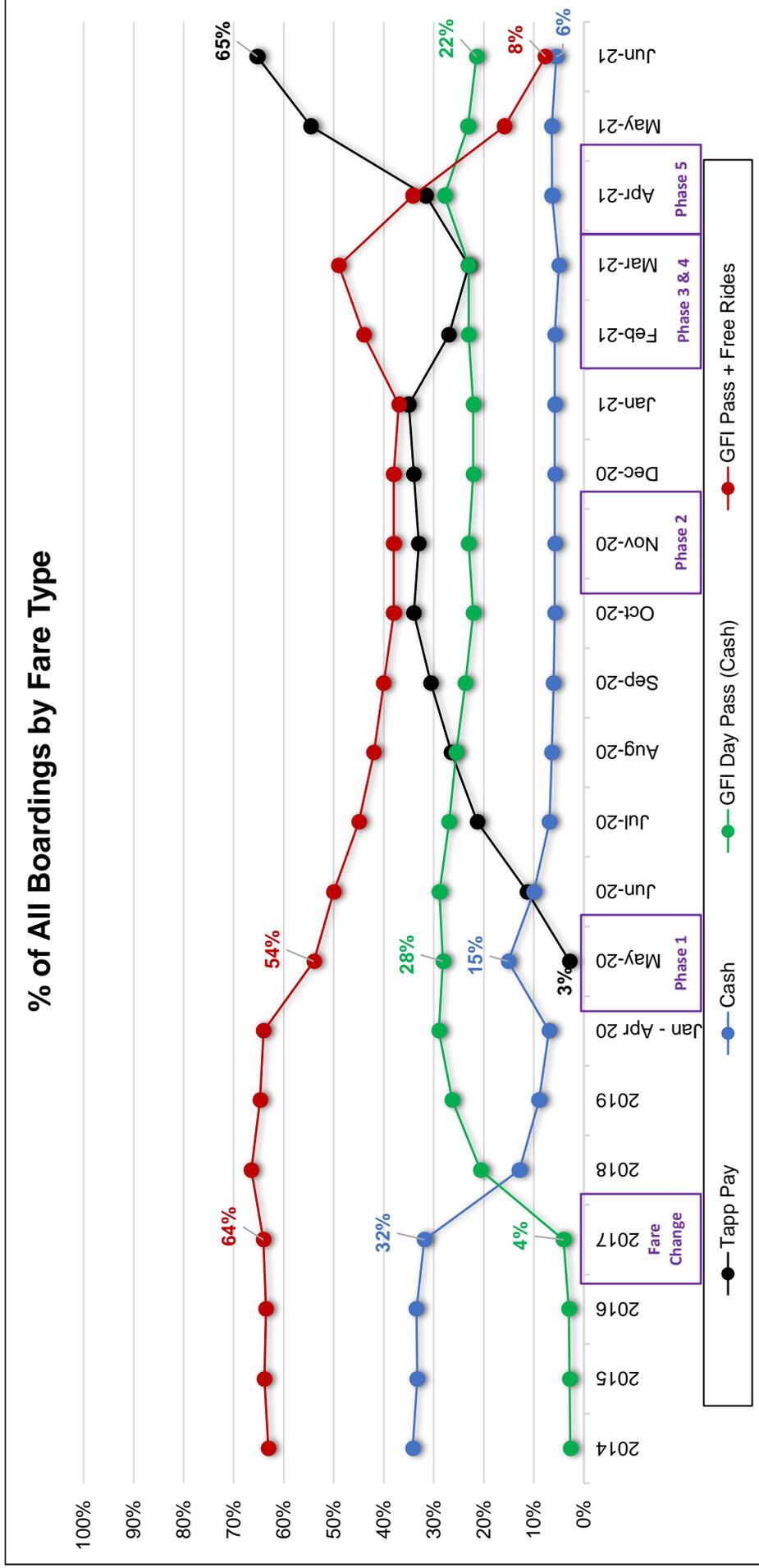
## RTA ending selling day passes on buses in latest move toward cashless system

Expand



# July 2021 Report

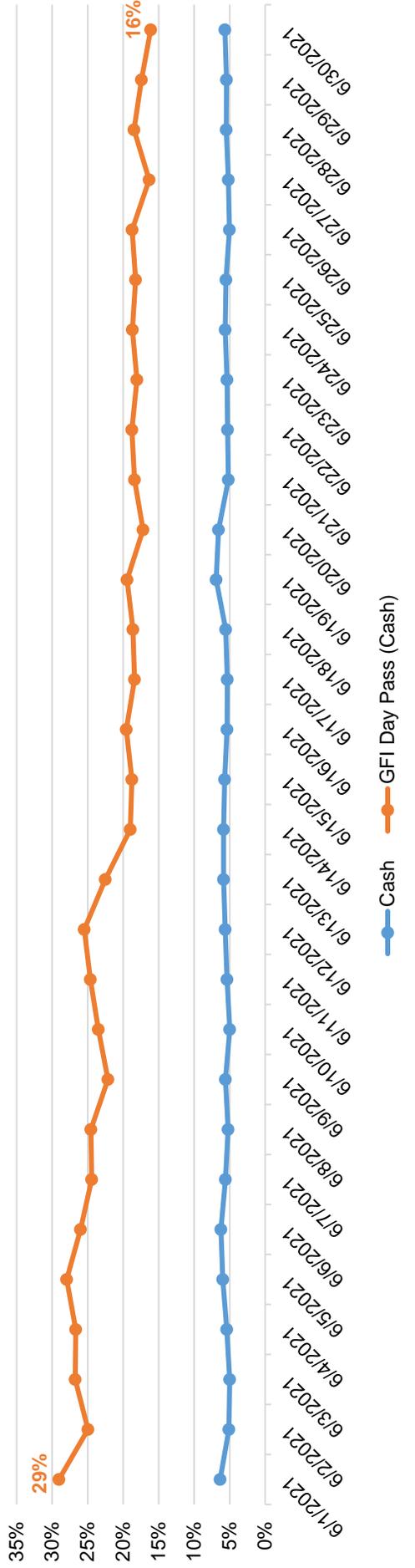
## Fare Payment System Utilization Comparison





# July 2021 Report

## June 2021 Cash Boardings



## Journey to 100% Cashless On-Board

