Central County Transportation Authority

Transit Fare Study

Recommendation Report

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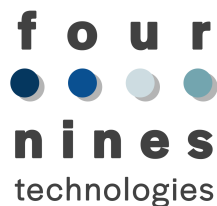
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1 Introduction

In January 2024, CCTA contracted Four Nines Technologies and Amey Consulting to complete a fare study of their fixed route, microtransit and paratransit services. This fare study reviewed CCTA's current fare structure, which has been in place since 2009, and CCTA's fare collection technology. The study provides a set of options and recommendations to improve and update the agency's fare structure and fare collection technology. The options were developed considering industry best practices, trends, and successful innovations for improving value and effectiveness while remaining equitable for customers.

The fare study sets out the recommendations for optimal fare structure policies for fixed route service (Metro), paratransit and demand/response service (Metro Connect) and microtransit (Metro Link) considering:

- Balance of ridership, revenue return and community benefits
- Increasing customer convenience
- Fare collection technology

1.1 Background

CCTA provides four public transportation services for the Kalamazoo area:

- Metro: Fixed route service
- Metro Connect: Paratransit and demand/response service
- Metro Link: Microtransit
- Metro Share: Providing vehicles to approved agencies serving seniors and individuals with disabilities for government agencies and non-profit organizations

Metro Share is not included in the scope of this project.

1.1.1 Metro: Fixed Route Service

CCTA employs a flat fare structure for the fixed route Metro service. Metro's fare products include Single Rides, Single Rides sold in multi-ride packs, a rolling 9-Day Pass, and a rolling 31-Day Monthly Pass.

Discounted fares for non-adult riders are only available for Single Rides. The following riders are eligible for discounted Single Ride fares:

- Children less than 48" tall and over 23 months of age
- Seniors 62+ (Metro ID Required)
- ADA-Eligible Riders (Metro ID Required)
- Medicare Cash Fare (Red, white and blue Medicare card required)

Children under 23 months of age ride free.

Transfers are free and must be requested at the time of boarding the first bus. Customers receive a time-stamped transfer receipt, which is valid for 60 minutes, and should be given to the driver of the last bus boarded.

Table 1. Metro Fare Products, Prices, and Fare Media

Rider Category	Fare Product	Price	Fare Media				
			Token Transit	Tokens	Magnetic Stripe Pass	Renewable Card	Cash On Board
Adult	Single Ride	$1.50	X	X		X	X
	14 Rides	$20.00	X	X			
	250 Rides	$350.00		X			
	9-Day Pass	$20.00	X		X		
	Monthly Pass	$60.00	X		X		
Children under 48", Seniors aged 62+, ADA Eligible Riders and Medicare	Single Ride	$0.75	X	X		X[1]	X
Bridge Card Holder	Single Ride	$1.25		X			

Table 2. Metro Fare Products, Prices, and Multiples

Fare Product	Price	Multiple of Adult Single Ride
Adult Single Ride	$1.50	-
Reduced Single Ride	$0.75	.50x
Bridge Card Discount Token	$1.25	.83x
14 Ride Token Pack	$20.00	13.33x
250 Ride Token Pack	$350.00	233.33x
9-Day Pass	$20.00	13.33x
Monthly Pass	$60.00	40x

1.1.2 Metro Connect: Paratransit and Demand Response

CCTA employs a flat fare structure for the Metro Connect Service. Metro Connect fares are only available as Single Rides. CCTA offers rider benefits, such as the ability to pre-book trips and priority trip scheduling, with a subscription service. Subscription holders pay per trip and are billed a month in advance. Subscription agreements must be for at least 3 months but can be for only one trip per month.

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[1] No renewable card for Children under 48"

Table 3. Metro Connect Fares

Rider Category	Paratransit Eligible Fares	
Access Certified Customers (for trips within ¾ of fixed route)	$3.00	

Rider Category	On-Demand	Subscription/Pre-Booked
Seniors and individuals with disabilities; Access Certified outside service area	$4.00	$6.00
Children (under 48 inches)	Free	Free
Children (over 48 inches)	$10.00	$12.00
Cash (everyone else)	$12.00	$14.00

1.1.3 Metro Link: Microtransit

CCTA also operates Metro Link with a flat fare structure and only offers Single Ride fare products. If the rider's trip includes a transfer to/from the bus, the Metro Link leg is free. Riders must pay the appropriate fare upon boarding the bus.

Table 4. Metro Link Fares

Fares	Price
Single	$1.50
Reduced Fare	$0.75
Transfer to/from bus	$0.00

The following riders are eligible for reduced fare Single Ride:

- Children less than 48" tall and over 23 months of age
- Seniors 62+
- People with disabilities

1.2 Methodology

The fare study consisted of 6 tasks. The first three tasks (Review and Analysis of Fare Structure and Technology, Peer and Industry Review and Strengths, Weaknesses, Opportunities and Threats) focused on understanding the CCTA's current fare structure and policies, how they are being used by riders and identifying the pain points for both CCTA and its riders. The Peer and Industry Review enabled Four Nines to identify gaps between CCTA's

current fare policy and technology and trends in the industry. Key outputs from this research are included in the appendices:

- Current State report is included in Appendix A
- Summary of the rider survey is included in Appendix B
- Peer and industry review report is in Appendix C
- Strengths, Weaknesses, Opportunities and Threats (SWOT) in Appendix D
- The Fare Technology Trend Overview is included in Appendix E

Four Nines used this information to develop a set of fare alternatives to consider. We worked with CCTA staff and undertook a rider survey, as well as initial fare modelling outputs, to help us refine the alternatives into a set of recommendations and two fare level options.

Table 5. Project Tasks

Task	Task Name	Activities
A	**Review & Analysis of Fare Structure and Technology**	- Current State Analysis - Documented Fare Collection Costs - Rider Survey Development, Distribution, & Analysis
B	**Peer and Industry Review**	- Analyzed Practices of 6 Peer Agencies - Documented Best Practices - Gap Analysis - Memo on Industry Non-Profit Bulk Purchase Practices
C	**Strengths, Weaknesses, Opportunities, and Threats**	- SWOT Technical Memo
D	**Option Development**	- Developed Evaluation Criteria - Microtransit Cancellation & No Show Policy Industry Review - Metro Link Payment Options Memo - Option Development
E	**Modeling of Existing and Alternative Fares and Technology**	- Fare Alternative Modeling - Initial Evaluation of Alternatives - Fare Technology Trend Overview
F	**Final Recommendations**	- Alternative Refinement - Fare Technology Procurement Exploration - Recommendations Report & Presentation

1.3 Key Findings

This section highlights the key findings from the first three tasks. The full SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis is included in Appendix D.

1.3.1 Metro

CCTA's adult single fare is within the range of its peers between $1.00 and $2.00.

The majority of Metro riders purchase Single Ride fares, increasing the number of transactions that the riders and CCTA need to complete.

Metro offers a range of time-based period passes; however, the 9-Day Passes are not heavily used by riders. CCTA's peers generally offer single ride fares, day passes, and monthly passes. Metro does not have a day pass. Almost three quarters of trips are made using transfers between fixed route buses, suggesting a day pass may be useful to reduce the number of transfers bus operators need to distribute. Most peers do not offer multi-ride passes. The recommendations aim to provide pass periods that more closely meet riders' needs and travel patterns.

CCTA's pass multiples are the highest amongst its peers. CCTA riders take longer to reach the breakeven point for passes. The recommendations aim to make the monthly passes better value for money for riders to encourage a shift away from single fare trips and towards passes. This will also reduce the number of transactions and transfers that operators need to complete, reducing the administrative burden for Metro.

Peers generally offer free fares for children under 5 years old, while CCTA limits free fares for children to those under 2 years old. The recommendations aim to make public transit more affordable for families, especially low income families to support increased ridership.

Metro has a number of pass programs with institutions which are well used.

A high proportion of riders are lower-income and approximately 3,500 Bridge card discount tokens are purchased each month.

1.3.2 Metro Connect

The Metro Connect fare structure is complex with different fare prices for different rider types and subscription offers. Four Nines' analysis found that the subscriptions for adults and children are not well used.

Table 6. Metro Connect Current Fare Structure

Rider Category	Paratransit Eligible Fares	
Access Certified Customers (for trips within ¾ of fixed route)	$3.00	
Rider Category	**On-Demand**	**Subscription/ Pre-Booked**
Seniors and individuals with disabilities/Reduced fare riders (for trips outside ¾ mile of fixed route)	$4.00	$6.00
Children (under 48 inches)	Free	Free

| Children (over 48 inches) | $10.00 | $12.00 |
| Everyone else | $12.00 | $14.00 |

Peers generally have a simpler distinction between the different services and a simpler fare structure. The recommendations aim to simplify the fare structure for both riders and staff.

The majority of peers offer paratransit fares at the FTA requirement of two times the adult single ride fixed route fare, the same as CCTA.

1.3.3 Metro Link

The Metro Link fares match Metro fares making the fare structure easier to understand for riders.

Due to the nature of demand response, defined as paratransit and microtransit services, operations are designed to fit the demand and geography of local areas so there is significant variation between peer agencies

Peers generally have a very simple fare structure with only a single fare offered. Fort Wayne Public Transportation Corporation and CCTA offer discounts for different rider groups on their microtransit services with both offering 50% discounts for youth, seniors, and people with disabilities. Toledo Area Regional Transit Authority and CCTA allows microtransit (TARTAFlex) riders to transfer to fixed route services free of charge.

The recommendations aim to manage demand for Metro Link services and ensure it continues to be used as a first/last mile service.

1.3.4 Fare Technology

The large number of fare media options offered forces CCTA to maintain a number of different fare technology systems. High onboard cash usage is costly for CCTA and is likely increasing dwell times compared to other payment methods as riders find the correct change.

A significant proportion of trips are made using physical tokens, which require a lot of effort/cost for CCTA to distribute.

The large upfront cost to obtain a renewable card ($35 - $5 for card, $30 in stored value) may be discouraging riders from using this fare technology. Smartcard purchases and reloads are only available in person, which may be discouraging riders from using this fare technology.

No other peer agencies offer physical tokens as a fare media. The fixed route fareboxes are end-of-life and becoming more difficult and expensive to maintain.

Peer agencies are updating to more modern technology and streamlining the variety of fare media they offer to increase customer convenience and reduce administrative complexity. Appendix E includes details of industry trends in fare

The recommendations aim to make it easier for riders to use electronic fare payment and move away from cash. The recommendations include removing the old Token fare technology and replacing it with a fare collection system which is simpler for riders to use, and CCTA to maintain and operate.

1.4 Option Development

Four Nines used the information gathered in the first three tasks to develop a set of fare alternatives for the CCTA Board to consider. We worked with CCTA staff and undertook a rider survey, as well as initial fare modelling outputs, to help us refine the alternatives into a set of recommendations and two fare level options.

1.4.1 Rider Survey

The aim of the Rider Fare Survey was to understand how riders use the current fare structure and riders' views on a number of potential fare structure changes being considered as part of this fare study.

As the potential fare changes are largely for Metro Bus fares, the survey was aimed at Metro Bus riders and focused on bus fares. There were no specific questions about Metro Link or Metro Connect fares.

The online survey was administered using HubSpot. The survey was live from Friday May 16th until Monday June 9th. 233 complete responses were received in this time. Key feedback from the survey included:

- Fare affordability is important
- A vast majority of riders have access to technology which would enable them to use electronic payment methods
- The Token Transit app is the most commonly used method of paying for fares, with paying with cash on board the next most used method
- Many riders use transfers to complete their journey, so any policy which removed transfers would need to be considered carefully. Other fare technology methods could be used to reduce the need for paper transfers issued onboard vehicles
- Although a high proportion of riders use the Metro Bus service very frequently (39% travel five or more times per week), the most commonly purchased fare is a Single Ride fare (69%). Suggesting that currently available period passes do not meet the needs of riders
- A high proportion of fares are paid with cash onboard, with riders stating that they prefer to use cash (25%).
- 11% of respondents stated that they usually pay with tokens. The most common response to why they use tokens was "It is easy and convenient for me to purchase tokens" (42%)
- Generally, riders agreed with the statement that the available discounts enable eligible riders to use CCTA services. Though, the responses suggest that simplifying youth fares would be beneficial
- There is strong support for the introduction of a Day Pass, especially amongst riders that currently purchase Single Ride fares
- There is strong support for the introduction of discounted Day and Monthly Passes. As riders who are eligible for a discount are frequent riders, with 35% traveling 5 or more times per week on Metro Bus services. Discounted period passes would be a significant benefit to them, and may reduce Single Ride purchases
- The most common response when asked how they would like to pay for their fares in the future was with a Mobile Ticket on a phone (36%), then cash on board (19%). A significant proportion would prefer to pay with Renewable Value Card or credit/debit cards onboard. The least popular payment methods were Paper Passes and Tokens.

1.4.2 Fare Modeling

Fare modeling was undertaken to evaluate potential ridership and fare revenue impacts that might be expected to occur with proposed changes to CCTA's fare structure and pricing. In order to assess detailed impacts that may occur, CCTA customers were segmented into unique groups and ridership and fare revenue associated with those customer segments were estimated. This segmentation approach provides detailed assessments of how small changes in pricing and policy can impact unique groups.

Numerous data sources were used in the development of a baseline, calibrated fare model including historic ridership and fare revenue data for Metro, Metro Connect and Metro Link, and survey results from the 2023/2024 socioeconomic customer survey.

After completion of the calibrated baseline, four fare alternatives were evaluated in terms of their ridership and revenue impacts. Following analysis of the results, staff engagement and analysis of the rider survey these were reduced to the two fare level options discussed in Recommendations section below.

1.4.3 Fare Policy Evaluation and Criteria

Four Nines, in consultation with CCTA staff, developed a set of evaluation criteria to assess the fare policy and structure alternatives considered as part of this fare study. We assessed the alternatives against the baseline for each criteria compared to determine whether it has a negative/neutral/positive impact.

The following table shows the goal and evaluation criteria related to that goal.

Goal	Evaluation Criteria
Maintain fare revenue	Increase or maintain current fare revenue levels
	Maintain 15% farebox recovery (all service types)
Increase ridership	Increase fixed route ridership
	Increase Metro Link ridership
Fair for all riders	Minimize adverse effects on protected populations
Simplified fare structure	Fare structure is easier for riders to understand
	Reduce the administrative burden for CCTA

2   Recommendations

This section describes the recommendations for Metro, Metro Connect, and Metro Link. The recommended options are borne from the results of the existing conditions analysis, SWOT analysis, peer review, rider survey, and fare model. Recommended options were assessed against the evaluation criteria as outlined in the previous section.

2.1 Metro (Fixed Route)

A number of key findings highlighted critical fare improvements for Metro and are the basis for the recommendations for Metro Bus:

- The Metro fare structure is complicated and does not meet riders' needs
- Metro limits free fares for children under 2 years old, lower than peers who generally also offer a youth discount
- 35% of discount eligible riders travel five or more times a week on Metro Bus
- Tokens, as a form of fare media, do not allow Metro to provide fare products that meet public transit riders' needs

2.1.1 Fare Structure

To meet riders' needs and address how complicated Metro's fares are today, we are recommending simplifying fares via the elimination of little used fare products. We are also recommending changes to more closely meet riders' needs through the introduction of a fare product, reduction of the Monthly Pass multiple, changes in the definition of youth, and more affordable and efficient reduced and discounted fare options.

Table 7. Metro Fare Structure Key Findings

Key Finding	Reasons for Recommendation
Metro fare structure is complicated and does not meet riders' needs	Offering Single Ride, Day Pass, and Monthly Pass is in line with peers, and eliminating little used 9-Day Pass will more closely meet riders' needs
Metro limits free fares for children under 2 years old, lower than peers who generally also offer a youth discount	Reducing the cost of travel for youth and children will promote increased ridership and support low-income families
35% of discount eligible riders travel 5 or more times a week on Metro Bus	Discounted period passes will improve affordability for discount eligible riders
Tokens, as a form of fare media, do not allow Metro to provide fare products that meet public transit riders' needs	Removing Tokens will reduce the number of fare media Metro maintains and operates; introducing a new fare collection system will enable CCTA to meet riders' needs

Based on the key findings described above, the following summarizes the recommended fare structure changes:

- Remove the 9-Day Pass
- Remove Token Bundles
- Reduce the Monthly Pass multiple, rounded to the nearest whole dollar
- Change the definition of Youth to 5 to 12 years old for the Youth fare
  - Align this discount with the discount rate for seniors and people with disabilities
- Extend the 50% discount to period passes to align with the discount rate for seniors and people with disabilities
- Transition the Bridge Card discount to electronic fare media with options to maintain or change the program's policies
- Replace the 250 Token bulk discount with a Social Services Discount Program

Table 8. Metro Current Fare Structure

Rider Category	Current Fare Structure
Adult	Single Ride
	14 Rides
	250 Rides
	9-Day Pass
	Monthly Pass
Children under 48", Seniors aged 62+, ADA Eligible Riders, and Medicare	Single Ride
	26 Rides
Bridge Card Holder	Single Ride
Children (23 months and under)	Free

Table 9. Metro Proposed Fare Structure

Rider Category	Proposed Fare Structure
Adult (13-61)	Single Ride
	Day Pass
	Monthly Pass
Children (5 to 12), Seniors aged 62+, ADA Eligible Riders, and Medicare	Single Ride
	Day Pass
	Monthly Pass
Bridge Card Holder	Single Ride
Social Services Program	To be determined
Children (5 and under)	Free

The Bridge Card Discount Program and Social Services Discount Programs are discussed later in this report.

2.1.1.1 Fare Level Options

Additionally, the Team explored a range of options related to fare levels. The first option maintains the current single ride fare levels and improves affordability for frequent customers. The second option focuses on higher revenue generation, while maintaining affordable passes for frequent customers.

<div align="center">Table 10.   Metro Fare Level Options</div>

Description (All Prices are Adult fare levels)	Current / Baseline	Option 1	Option 2
		Maintain fare levels and improve affordability for frequent customers	Higher revenue generation, while maintaining affordable passes
Base Fare	$1.50 with transfers	$1.50 with transfers / 1-Hr Pass	$2.00 with transfers / 1-Hr Pass
Day Pass	-	2x base fare ($3.00)	2x base fare ($4.00)
Monthly Pass	40x base fare ($60.00)	~33x base fare ($50.00)	30x base fare ($60.00)
All scenarios		- Remove 9 Day - Remove Token/Ticket Bundles - Youth fare 5 to 12 years (50% discount) - Eliminate 250 Tokens 50% discount for Discounted Day and Monthly Pass	

2.1.1.2 Option Development

The wide range of options we explored included:

- Single Ride fares ranging from $1.00 - $2.00
- Continuing or eliminating transfers
- New Day Passes at 2x - 3x the Single Ride fare
- Monthly Passes at 30x - 45x the Single Ride fare
- A variety of discount programs, fare media, and technology choices

We used input from CCTA staff and rider input garnered from the Survey, as well as initial modeling outputs, to refine the options.

Table 11.   Key Inputs to develop fare level option

Input	Implications for Recommended Options
Nearly 60% of riders today pay one ride at a time; of those, nearly 80% use a transfer to complete their trip	Eliminating transfers would require a major change in behavior and negatively impact many of CCTA's riders
Change collection is burdensome on staff and increases wear & tear on fareboxes	Preference for fares to be rounded to the nearest $0.50
Regular issues with transfers jamming fareboxes; magstripe tickets must be bought from OEM to avoid additional issues	Options should incentivize use of period passes and electronic fare media
Lowering the base fare would result in decreased revenue, decreased farebox recovery, and would require a decrease in paratransit fares	Affordability should be addressed through more targeted means than lowering the base fare for all riders

The input ultimately led to the two options as detailed in Table 12.

2.1.1.3 Evaluation

The Metro fare recommended fare structure changes and options were evaluated against the evaluation criteria formed in the earlier part of the Fare Study using the fare model developed for this study to quantitatively estimate the revenue and ridership impacts of the recommendations and qualitatively.

Option 1 generally maintains fare levels and improves affordability for frequent customers. As a result, our evaluation found that there is no change in fare revenue under Option 1, but there is a 6% increase in ridership. Option 2 generated higher revenue while maintaining affordable passes resulting in an increase in fare revenue by 7%, leading to a farebox recovery ratio increase of 1%, but a decrease in ridership by -9%.

Both fare level options simplify the fare structure making it easier for riders to understand and reduce the administrative burden for CCTA. The modeling shows that a significant proportion of riders will shift from purchasing single ride fares with cash and token and shift to other fare media and products. This will reduce the number of fare transactions that the operator needs to conduct, reducing the administrative effort for CCTA.

The assessment of the effects on the protected population has not been completed as it is a later part of the study.

The following table details the assessment of the two fare options against the evaluation criteria. The green circles indicate a positive impact, the yellow circles a neutral impact or no impact, and the red circles represent a negative impact.

Table 12.   Evaluation of Fare Level Options

Goal	Evaluation Criteria	No Change	Option 1	Option 2
Maintain fare revenue	*Increase or maintain current fare revenue levels*	No change in fare revenue 🟠	No change in fare revenue 🟠	Increase in fare revenue by 7% 🟢
	Maintain 15% farebox recovery (all service types)	FBR maintained at 13% 🟠	FBR maintained at 13% 🟠	FBR increases from 13% to 14% 🟢
Increase ridership	*Increase fixed route ridership*	No substantial change 🟠	+6% ridership 🟢	No substantial change 🟠
Fair for all riders	*Minimize adverse effects on protected populations*	*Not measured yet - part of Equity Analysis Task*		
Simplified fare structure	*Fare structure is easier for riders to understand*	🟠	🟢	🟢
	Reduce the administrative burden for CCTA	No change 🔴	Retain Transfers; 47% → 16% of FR Boardings paying with Cash, Token 🟢	Retain Transfers; 47% → 14% of FR Boardings paying with Cash, Token 🟢

As discussed above, the changes to the fare structure and pricing will encourage riders to shift from purchasing single ride fares to purchasing day and monthly passes. This will reduce the average fare that riders pay per ride. Based on the current fare structure, systemwide riders' average fare per ride is $1.43, slightly below the single fare value. Under Option 1, which maintains the current single fare, the systemwide average fare reduces to $1.39, a 3% decrease, as riders shift to purchase day and monthly passes. Under Option 2, which increases the single fare by 33%, the average fare increases to $1.63. However, this is a modest 14% increase as a significant proportion of riders shift to the better value day and monthly passes.

2.2 Metro Connect

Today, Metro Connect's fare structure is complicated with several options little used by riders. The different fare levels for each subscription level make it difficult to determine future fare increases. Related to the Metro Bus fare structure, the definition of child is not consistent across modes. With this in mind, we recommend the following options for Metro Connect fares. The dollar values show the fare whether option 1 or 2 is chosen for the Metro fare level.

Table 13.   Metro Connect Recommended Options

Metro Connect Recommended Options	
Rider Category	**Paratransit Eligible ADA Fares**
Access Certified Customers (for trips within ¾ mile of fixed route)	2x FR base fare ($3.00 or $4.00)

Rider Category	On-Demand	Subscription/ Pre-Booked
Seniors and individuals with disabilities/Reduced fare riders (for trips outside ¾ mile of fixed route)	3x FR base fare ($5.00 or $6.00)	4x FR base fare ($6.00 or $8.00)
Children (under 5 years)	Free	Free
Everyone else	2.5x Senior & individuals with disabilities single ride ($12.50 or $15.00)	2.5x Senior & individuals with disabilities subscription ($15.00 or $20.00)

The fare policy for Metro Connect's base fare should be set at two times the Metro Bus Single Ride fare to meet FTA maximum fare requirement. From Metro Connect's base fare, CCTA can set other Metro Connect fares as multiples of the base fare, thus streamlining future fare changes. When multiplying the base fare by three or four results in a fare level that is not a whole dollar, CCTA's policy will be to round to the nearest whole dollar to avoid coin usage on board.

2.3 Metro Link

CCTA's Metro Link service is a feeder, or last mile home, service. As such, the fare level of the Metro Link fare should not be priced as a premium fare. The fares between Metro Bus and Metro Link should be consistent, and, ultimately, Metro Bus should be more attractive to riders for most trips. The recommended fare options for Metro Link include:

- The Metro Link fare will match the Metro Bus base fare
- Metro Link will be a pay-per-ride service only – Metro Link fares will not be included in Metro period passes
- Metro Link trip fares will not be included in Institutional Pass Program agreements
- Maintenance of no cash acceptance on board Metro Link

In evaluating the impacts of Option 1 versus Option 2 on Metro Link ridership and revenue, Option 2 may decrease ridership by up to 9% and increase fare revenue by up to 16%. Option 1 will most likely have no impact on ridership as this is the fare today and may have a small decrease in Metro Link fare revenue.

Table 14.   Impact of Fare Options on Metro Link Ridership and Revenue

Metro Link Impacts	Metro Link Ridership	Metro Link Revenue
Option 1	No change	Small Decrease

Metro Link Impacts	Metro Link Ridership	Metro Link Revenue
($1.50 base fare)		(less than 2%)
Option 2 ($2.00 base fare)	9% decrease	16% increase

2.4 Bridge Card Discount Program

Today, the Bridge Card Fare Program (BCP) offers eligible riders a discount of $0.25 off the Adult Single Ride fare ($1.25/Token). Approximately 7% of sales are for the BCP discount Tokens. As the BCP is only available to riders with a Bridge Card, Michigan's Electronic Benefits Transfer card, the program is limited to those receiving Supplemental Nutrition Assistance Program (SNAP) or Temporary Assistance for Needy Families (TANF). Eligible riders must travel to the Kalamazoo Transportation Center and present their Bridge Card as well as a photo ID to receive the discount.

There are several options for the BCP moving forward. The options are contingent upon the procurement of a new electronic fare collection system, but interim options exist. Especially with the elimination of Tokens, CCTA should reconsider elements of the BCP. The following timeline depicts how CCTA can make decisions about the BCP before procuring a new fare collection system and after.

If CCTA were to eliminate the BCP, ridership may decrease by between 3,000 and 4,900 riders and fare revenue may increase by between $3,800 and $5,400, depending on the base fare chosen (i.e., Option 1 or Option 2). If CCTA were to increase the BCP discount to 50%, in alignment with other discounts, ridership would possibly increase by between 15,200 and 15,800 riders and fare revenue may decrease by between $12,700 and $16,400, again, dependent on the base fare level chosen.

2.5 Social Services Discount Pilot Program

We recommend CCTA introduce a Social Services Discount Pilot Program to replace the current bulk token purchase option. From August 1, 2024, through July 31, 2025, CCTA sold a vast majority of the bulk token packs to known organizations. In fact, CCTA sold 96,482 tokens to 29 unique, known organizations via the bulk token purchase option, and brought in $135,074.80 of fare revenue. The tokens purchased provide the purchasing organization with $0.10 off per token.

To create more of a partnership between CCTA and the purchasing organization as well as to efficiently and fairly distribute transit benefits to vulnerable rider groups with immediate transportation needs, CCTA should consider implementing a Social Services Discount Pilot Program, especially with the elimination of tokens. The Social Service Discount Pilot Program should provide a discount on fares purchased by specific organizations up to an annual cap per organization with remaining tokens or passes charged at the full base fare, which will allow CCTA to manage the fare revenue impact of the program. Four Nines analyzed impacts to fare revenue and to organization's costs under five different discount and cap scenarios (all based on a $1.50 base fare):

Table 15.   Fare Revenue impacts of Social Services Discount Program Scenarios

	Current State	25% Discount | Cap 1,000	25% Discount | Cap 2,000	$1 Fare (~33%) | Cap 1,000	$1 Fare (33%) | Cap 2,000	50% Discount | Cap 1,000
Fare Revenue	$135,074.80	$135,808.20	$131,682.92	$132,993.00	$127,565.00	$127,128.00
# Orgs paying more than they currently pay	-	5	4	5	3	4

CCTA will need to make several decisions regarding the program's elements and policies. As a pilot program, CCTA should reassess program elements and policies after the first year to ensure they meet CCTA's and participating organization's needs. The following table has a combination of recommended program policies and needed decisions.

Table 16.   Social Services Discount Program Elements

Program Elements	Policy
Eligibility	Non-profits with 501(c)3 designation, and/or social service organizations and public agencies serving vulnerable groups with immediate transit needs
Discount	Participants can purchase tokens (in the future, QR code Single Rides) at x% off Adult Fare. Participants must pass along the fare to their clients at no cost
Enrollment	Purchase windows open twice per year

Program Elements	Policy
Limit	Each participating organization is capped at x tokens/passes per calendar year
Partnership	Participating organizations must promote Metro services, refer clients to travel training, and inform eligible clients of Metro's reduced fare programs
Reporting	Once per calendar year – assess number of tokens/passes distributed and ensure promoting Metro services

2.6 Fare Technology

CCTA's existing fare collection technology has a number of limitations:

- Equipment is hard to maintain and subject to frequent failure
- Existing fareboxes are end of life and replacement fareboxes are expensive
- Customers are limited in where they can purchase and reload fare media
- Magnetic stripe tickets are prone to failure

Most of CCTA's peers have shifted to fare collection solutions that rely on electronic validation and a growing number of small and mid-size agencies are adopting Account-Based Ticketing (ABT) solutions as costs for these systems have come down and vendors and their offerings have stabilized.

Account-based ticketing allows riders to link their preferred electronic fare media (e.g., smart card or app) to their account, adding value and managing tickets/passes in real time anywhere with an internet connection.

ABT enables:

- Better agency data collection and reporting
- Reduction in cash payments on board and associated improvements in boarding speeds
- Easier management of fare pricing, products, and discount fare eligibility
- Opportunities to introduce fare capping, open payments, and a wider fare distribution network
- Simpler on board equipment that is easier to maintain and swap out in case of failure

Creative procurement approaches have streamlined access to these systems, especially for transit agencies in the Midwest and California.

CCTA can either procure an ABT system by conducting their own procurement or could join NEORide, a membership-based Council of Governments, and leverage their cooperative procurement for EZFare, an existing, multi-agency ABT solution already used by more than a dozen agencies.

Additional future fare technology investments may include new ticket vending machines and/or new fareboxes.

3 Conclusion

The recommendations described above were developed to balance ridership, revenue return and community benefits. They aim to increase customer convenience. By implementing modern fare collection technology CCTA will be able to meet the changing customer and agency expectations.

3.1 Outcomes

The recommendations will:

- Reduce fare confusion among internal and external stakeholders
- Reduce administrative cost and upkeep
- Provide quality, easy-to-use options to increase ridership on all modes

The recommendations will meet the fare policy goals/evaluation criteria. The development of the recommendations considered the balance between equity and affordability. The recommendations focus on making monthly passes more affordable for regular users and also introduce discounted monthly passes which will provide frequent reduced fare riders to benefit from lower fares.

CCTA has an aim to maintain 15% farebox recovery. Farebox recovery is currently below this level, so the recommendations and fare options aimed to maintain farebox recovery and minimize as decrease due to changing fares.

The fare technology recommendations aim to streamline the fare collection systems operated by CCTA to make it easier and more efficient for CCTA to maintain and operate and also for riders to use.

3.2 Next Steps

Once the recommendations have been approved and a base fare level option determined, CCTA should determine the fare technology approach and begin the procurement process.

3.2.1 High-Level Implement Plan

Four Nines have developed a High-Level Implementation Plan, which is phased to minimize the changes that both CCTA and riders need to undertake.

Table 17.   High Level Implementation Plan

Phase	Actions	Timing
Phase 1: Short-term fare changes that do not require new technology	Lower Monthly Pass Price Eliminate 9-Day Pass Expand Youth definition	
Between Phases 1 and 2, procure and install new fare technology		
Phase 2: Introduce new passes	Introduce Day Pass (Electronic Only)	Approximately 12 to

Phase	Actions	Timing
for frequent riders	Introduce Day and Monthly Discounts (Electronic Only)	18 months after Phase 1
Phase 3: Introduce fare programs on new fare technology and stop selling Legacy some products	Introduce Revised Bridge Card Program Introduced Social Services Discount Fare Pilot Stop selling Legacy Monthly Passes Stop selling/revaluing Legacy Stored Value Cards	Approximately 6 to 12 months after Phase 2
Phase 4: Stop selling and accepting remaining legacy fare media and support rider transfer to new fare technology	Stop selling new Tokens Stop accepting all other Legacy fare media Support trade-ins of Legacy fare media Eliminate paper transfers	Approximately 3 to 6 months after Phase 3

3.2.1.1 Phase 1

Phase 1 requires no new technology and may incentivize a natural shift away from single ride and transfer usage. Provides immediate customer benefits with additional youth discounts and lower priced monthly passes for regular riders

3.2.1.2 Phase 2

The Day Pass and discounts on the Day and Monthly Passes would require CCTA to manage additional physical fare media and thus should wait for an electronic solution.
This phase will naturally incentivize shifts away from single rides, transfers, and legacy electronic media usage as new discounts and passes are available only on the new system

3.2.1.3 Phase 3

Introducing the new Bridge Card Program while continuing to sell tokens allows for an easier period of transition. If CCTA increases the Bridge Card Program discount, CCTA could restrict the additional discount to new media only to incentivize adoption.

The Social Services Discount Fare Pilot could occur as early as Phase 1. Waiting until Phase 3 means the program could be launched using future electronic media and new partners would only not need to transition from tokens to new media

3.2.1.4 Phase 4

Eliminating paper transfers could occur earlier in Phase 2 or 3. Waiting for Phase 3 or 4 gives customers more time to naturally shift away from their usage

3.3 Monitoring

CCTA should monitor the impact of the fare structure and policy changes to assess how well they meet the fare policy goals. The monitoring should include analysis of fare revenue, fare product and fare media usage, as well as analysis of the impacts of the recommendations on vulnerable rider groups.

The monitoring should include:

- Trends in total ridership on Metro, Metro Connect and Metro Link
- Trends in fare product sales and usage using fare collection data
- Trends in fare media usage including changes in cash purchases onboard vehicles
- Trends in customer satisfaction with fares through Rider Surveys
- Fare collection costs including operations and maintenance

The source for the majority of this data will be the fare collection system. CCTA should ensure that the requirements for the system include the ability to collect this data. Regular rider surveys will also be required to determine rider demographics, fare usage, and any fare collection pain points.

Undertaking regular monitoring will enable CCTA to identify any changes required to the fare structure and fare technology in order to continue to meet riders' needs. CCTA should also monitor trends in operating costs, inflation and the farebox recovery rate to identify when a fare change should be considered. The fare structures for Metro, Metro Connect and Metro Link have been designed so that they are based on formula compared to the base fare so once CCTA determines the change required to the base fare the rest of the fares will simply follow those formula.

Appendices

Appendix A: Review and Analysis of Fare Structure and Technology

METRO

Central County Transportation Authority
Transit Fare Study

Review and Analysis of Fare Structure and Technology

Delivered on: April 22, 2025
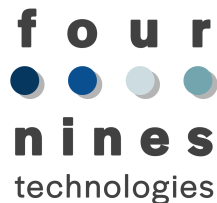
Prepared by Four Nines Technologies

four
nines
technologies

Table of Contents

Introduction

This report describes the Central County Transportation Authority (CCTA) existing fare policy, fare structure and levels, fare collection system, and associated business processes for its fixed route service (Metro), paratransit and demand/response service (Metro Connect) and microtransit (Metro Link). The report also includes an assessment of the CCTA's fare collection system costs, including costs to collect cash on buses.

Four Nines analyzed CCTA's ridership and revenue data to understand the distribution of ridership and fare revenue among fare products, and used National Transit Database (NTD) data to establish an understanding of fare-related performance.

Project Description

This fare study will review CCTA's current fare structure, which has been in place since 2009, and CCTA's fare collection technology. The study will result in options to improve and update the agency's fare structure and fare collection technology. The options will consider industry best practices, trends, and successful innovations for improving value and effectiveness while remaining equitable for customers.

The fare study will determine optimal fare structure policies for fixed route service (Metro), paratransit and demand/response service (Metro Connect) and microtransit (Metro Link) considering:

- Balance of ridership, revenue return and community benefits
- Increasing customer convenience
- Fare collection technology

CCTA Service Overview

CCTA provides four public transportation services for the Kalamazoo area:

- Metro: Fixed route service
- Metro Connect: Paratransit and demand/response service
- Metro Link: Microtransit
- Metro Share: Providing vehicles to approved agencies serving seniors and individuals with disabilities

Metro (Fixed Route Bus)

The fixed route bus service includes twenty-one regularly scheduled bus routes which operate on 30 to 60 minute frequencies depending on the route and time of day. There are 46 buses in the fleet and 720 stops throughout the system. The system operates Monday to Saturday from 6am to 10pm and Sunday 9.15am to 5.15pm.
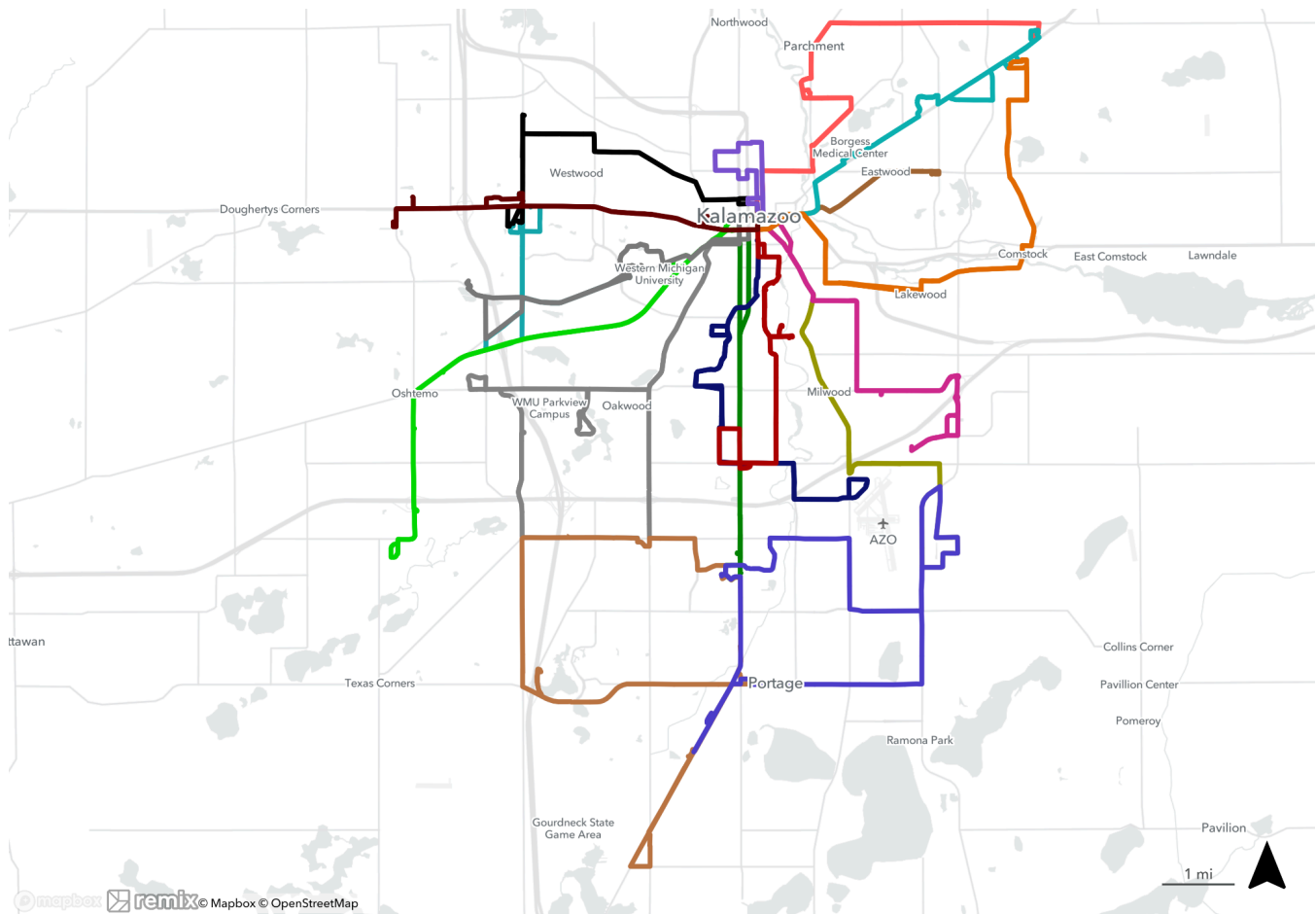
Metro Connect (Paratransit and Demand Response)

Metro Connect is an accessible door-to-door transportation service for those who are unable to use regular, accessible fixed route bus service due to a physical or cognitive disability and meets federally mandated ADA paratransit service requirements. CCTA owns 45 Metro Connect vehicles but contracts out service operations to First Student. The service operates Monday to Saturday 6am to 10pm and Sunday 8am to 6pm.
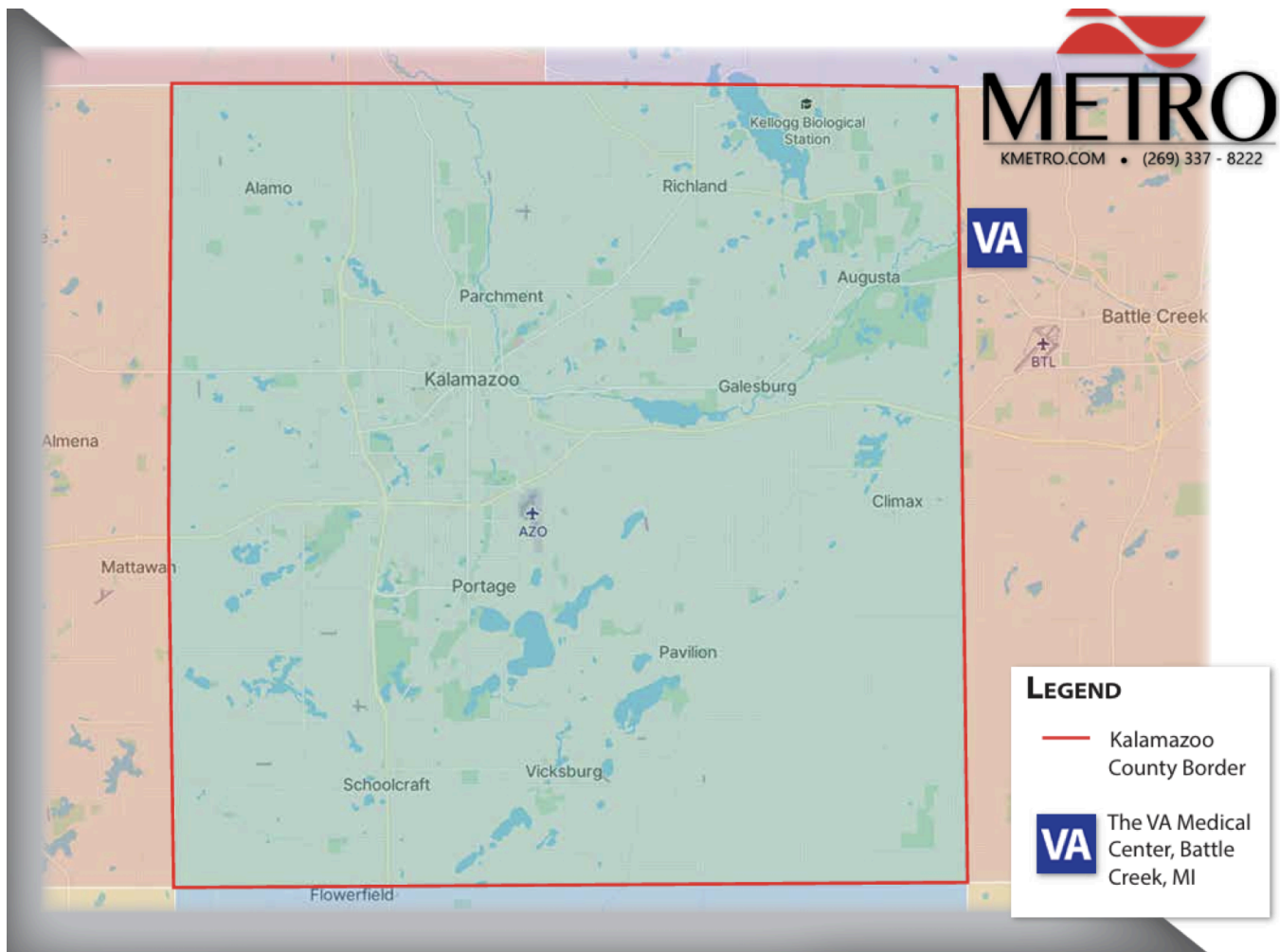
Metro Link (Microtransit)

Metro Link is an app-based, on-demand rideshare service which operates within three zones of Kalamazoo's urbanized area. CCTA launched Metro Link in 2024, originally planned to continue to the end of 2025 and has since been extended to December 2026. Metro Link's hours and fare structure mirror those of the fixed route system. The initial contract was for 75% of the fleet is wheelchair accessible, currently operating at approximately 67%. Via Transportation, LLC is contracted to operate the service and provide vehicles.
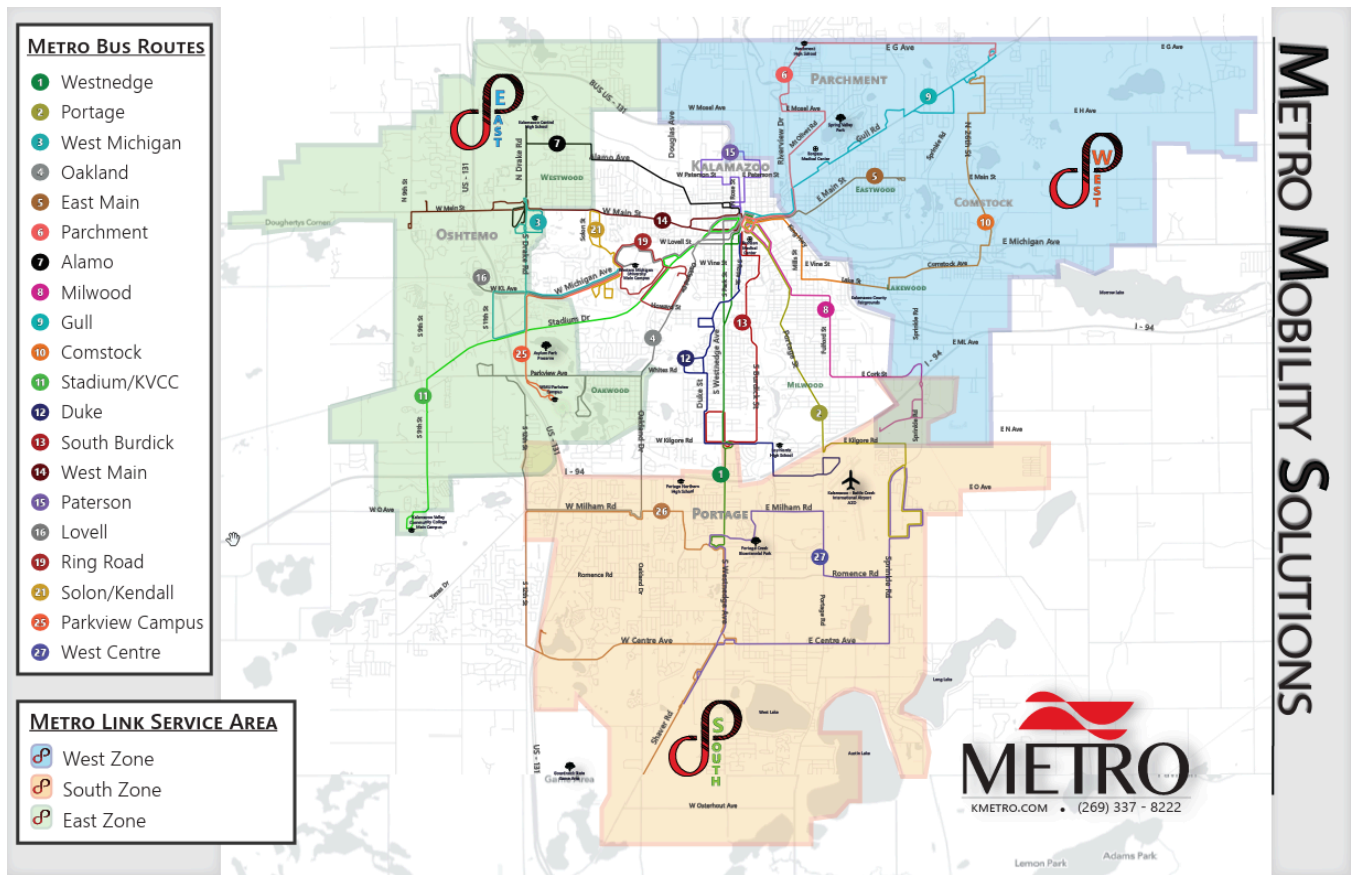
Metro Share (Shared Vehicles)

The Metro Share Program is a specialized service providing vehicles to approved agencies serving seniors and individuals with disabilities at no cost. The program has nine ADA-compliant vehicles available for agency use. Vans are reserved on a first-come, first-serve basis and the program is designed to complement existing Metro services. The program is partially funded by the Michigan Department of Transportation.

Metro Share is not included in the scope of this fare study.

CCTA Revenue Sources

CCTA generates revenue from a variety of sources. Table 1 shows 2023 sources of operating funds as reported to NTD.

Table 1. Sources of Operating Funds (2023)

Sources of Operating Funds	Amount	Percentage of Operating Funds
Directly Generated	$10,619,417	53%

Sources of Operating Funds	Amount	Percentage of Operating Funds
Federal Government	$3,776,618	19%
Local Government	$0	0%
State Government	$5,813,674	29%
Total	$20,209,709	100%

Table 2 shows 2023 sources of capital funds as reported to NTD.

Table 2. Sources of Capital Funds (2023)

Sources of Capital Funds	Amount	Percentage of Capital Funds
Directly Generated	$0	0%
Federal Government	$2,776,090	80%
Local Government	$0	0%
State Government	$694,022	20%
Total	$3,470,112	100%

In 2023, fare revenues were generated across CCTA's two services as shown in Figure 3. As Microtransit service began in 2024, it is not included in these figures:

Figure 1. Fare Revenue by Mode (2023)
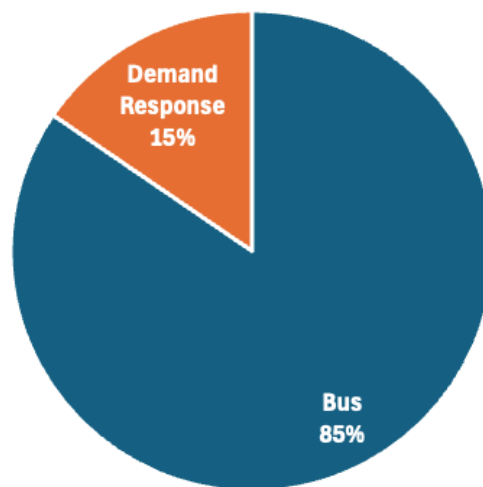
Current Fare Structure and Policies

The following section provides an overview of CCTA's current fare structure for Metro, Metro Connect and Metro Link services. The last fare change was implemented in 2009.

Metro (Fixed Route Bus)

CCTA employs a flat fare structure for the fixed route Metro service. Metro offers a variety of fare products. The adult fare is for riders 48" and taller through age 61. Metro's fare products include Single Rides, Single Rides sold in multi-ride packs, a rolling 9-Day Pass, and a rolling 31-Day Monthly Pass.

Discounted fares for non-adult riders are only available for Single Rides. The following riders are eligible for discounted Single Ride fares:

- Children less than 48" tall and over 23 months of age
- Seniors 62+ (Metro ID Required)
- ADA-Eligible Riders (Metro ID Required)
- Medicare Cash Fare (Red, white and blue Medicare card required)

Children under 23 months of age ride free.

Metro does not offer either of its duration-based products (9-Day and Monthly) at a discount for reduced fare eligible customers. In the Token Transit app purchase flow, a rider selects a service, their rider type, and then a pass. Reduced fare eligible customers are shown 9-Day and 31-Day Passes, but the passes are priced identically to the Adult versions of the same passes. The 26 Ride Pass, only available on Token Transit, simply provides 26 Single Rides in one purchase; the Single Rides are not discounted above the existing reduced fare discount.

Transfers are free and must be requested at the time of boarding the first bus. Customers receive a time-stamped transfer receipt, which is valid for 60 minutes, and should be given to the driver of the last bus boarded.

Table 3. Metro Fare Products, Prices, and Fare Media

| Rider Category | Fare Product | Price | Fare Media | | | | |
			Token Transit	Tokens	Magnetic Stripe Pass	Renewable Card	Cash On Board
Adult	Single Ride	$1.50	X	X		X	X
	14 Rides	$20.00	X	X			
	250 Rides	$350.00		X			
	9-Day Pass	$20.00	X		X		
	Monthly Pass	$60.00	X		X		

			Fare Media				
Rider Category	Fare Product	Price	Token Transit	Tokens	Magnetic Stripe Pass	Renewable Card	Cash On Board
Children under 48", Seniors aged 62+, ADA Eligible Riders and Medicare	Single Ride	$0.75	X	X		X[1]	X
	26 Rides	$19.50	X				
Bridge Card Holder	Single Ride	$1.25		X			

Table 4. Metro Fare Products, Prices, and Multiples

Fare Product	Price	Multiple of Adult Single Ride
Adult Single Ride	$1.50	-
Reduced Single Ride	$0.75	.50x
Bridge Card Discount Token	$1.25	.83x
14 Ride Token Pack	$20.00	13.33x
250 Ride Token Pack	$350.00	233.33x
9-Day Pass	$20.00	13.33x
Monthly Pass	$60.00	40x
Reduced 26 Ride Pass	$19.50	13.00x

Metro Connect (Paratransit and Demand Response)

CCTA employs a flat fare structure for the Metro Connect Service. Metro Connect fares are only available as Single Rides. The fare is determined by rider type and when the ride is booked – pre-booked or on-demand. CCTA offers rider benefits, such as the ability to pre-book trips and priority trip scheduling, with a subscription service. Subscription holders pay per trip and are billed a month in advance. Subscription agreements must be for at least 3 months but can be for only one trip per month.

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[1] No renewable card for Children under 48"

Table 5. Metro Connect Fares

Rider Category	Paratransit Eligible Fares	
Access Certified Customers (for trips within ¾ of fixed route)	$3.00	

Rider Category	On-Demand	Subscription/Pre-Booked
Seniors and individuals with disabilities; Access Certified outside service area	$4.00	$6.00
Children (under 48 inches)	Free	Free
Children (over 48 inches)	$10.00	$12.00
Cash (everyone else)	$12.00	$14.00

Metro Link (Microtransit)

CCTA also operates Metro Link with a flat fare structure, and only offers Single Ride fare products. If the rider's trip includes a transfer to/from the bus, the Metro Link leg is free. Riders must pay the appropriate fare upon boarding the bus.

Table 6. Metro Link Fares

Fares	Price
Single	$1.50
Reduced Fare	$0.75
Transfer to/from bus	$0.00

The following riders are eligible for reduced fare Single Ride:

- Children less than 48" tall and over 23 months of age
- Seniors 62+ (Metro ID Required)
- ADA-Eligible Riders (Metro ID Required)
- Medicare Cash Fare (Red, white and blue Medicare card required)

Pass Programs

CCTA has a number of supplemental contracts with organizations that allow individuals to travel fare free with their ID card or organization-issued pass.

Table 7. Pass Programs

Organization	Description	Proof of Eligibility	Annual Rides (2024)	Funding Source
Western Michigan University	Students, faculty and staff ride fare free on any Metro fixed route bus.	Bronco ID card shown to the driver when boarding. Bronco IDs are not validated other than by visual inspection. No transfers are provided to the passenger.	337,900	5 year agreement with WMU
Kalamazoo Valley Community College		Student passes are available by semester three times a year through the KVCC financial aid office. The student must take a slip from the financial aid office to Metro's customer service counter downtown to obtain a pass with their photo. No transfers	8,500	Students use Financial Aid dollars
Bronson Hospital	Since 2016, the hospital has distributed tap passes to its staff members.	Bronson Bus2Work tap passes No transfers	16,200	Annual service contract
Youth Mobility	In 2019, Metro partnered with the City of Kalamazoo, Kalamazoo Public Schools, and KYDNet to provide bus passes to high school students needing transportation for after school activities, work, or home.	Students with a Youth Mobility bus pass tap the farebox when boarding while showing their photo ID to the driver. No transfers	33,800	Flat rate per ride Foundations for Excellence pays for fares and Kalamazoo Public

Organization	Description	Proof of Eligibility	Annual Rides (2024)	Funding Source
				Schools pays for card
Promotional Passes	Metro partners with organizations to provide passes for festivals, events, programs, and employee retention efforts.	Metro staff work with the partners to determine the number of passes, how the passes are distributed, and how they are collected and recorded by the transit system. Drivers record these passes as "promotion" on the farebox.	4,400	

Fare Collection and Distribution

Fare Collection

Metro (Fixed Route Bus)

Metro fixed route vehicles are outfitted with Genfare Odyssey fareboxes capable of accepting cash, magstripe tickets and passes, tokens, and smartcards. Purchased by CCTA in 2009, the Odyssey farebox has recently been discontinued by Genfare. Replacement parts and spares have become challenging to obtain.

In addition to fare payment completed at the farebox, customers can also purchase most fares via the Token Transit app, introduced by CCTA in 2018. Token Transit fares are visually validated by the driver. CCTA has experienced issues with fraudulent replication of Token Transit tickets.

Western Michigan University students, faculty, and staff show their Bronco ID card to the driver when boarding and may ride fare free on any Metro fixed route bus. Fixed route vehicles are also outfitted with a driver display unit (DDU), on which drivers record certain boardings using touchscreen buttons. For instance, drivers press a DDU key to indicate a boarding made with a Token Transit mobile ticket. However, there is only a single DDU button for mobile ticket boardings and thus there is no differentiation made among the different mobile tickets (e.g., Single Ride vs. 9-Day). Drivers also key in all non-tappable IDs presented as fare media, such as WMU Bronco IDs. There are also separate buttons for CCTA's other supplemental contracts, such as with Kalamazoo Valley Community College and Bronson Hospital; the farebox typically automatically records these tappable passes, but drivers are responsible for differentiating between each of the different passes and tallying manually if the tap functionality isn't working for any reason.

Metro Connect (Paratransit and Demand Response)

Metro Connect fares are collected by the driver; there is no farebox installed on Metro Connect vehicles. Drivers collect cash (exact fare as operators do not carry change), personal checks, prepaid paper coupons, and visually validate Token Transit tickets. Payment via Token Transit has been available since 2018. Subscription fares can be paid with credit or debit cards and money order.

Metro Link (Microtransit)

There is no on board vehicle payment on Metro Link. Operated by Via, fares must be pre-paid using a bank card in the Via app, purchased on the Token Transit app. Payment via Token Transit was added to Metro Link in 2024. CCTA has also experienced issues with fraudulent replication of Token Transit tickets on Metro Link as well as inconsistency in drivers' adherence to procedures for accepting Token Transit tickets.

Fare Media & Media Distribution

On Board

Adult and reduced fare Single Rides are sold on board fixed route vehicles. Onboard purchases require exact change. 60-minute transfers are free and must be requested at time of boarding. Transfers are issued by the farebox and are date and time stamped. Upon boarding the bus with a transfer, the passenger can insert the transfer in the farebox, swipe it on the farebox, or show it to the driver. Other magnetic stripe tickets (pre-purchased 9-Day and Monthly passes) can be activated and validated at the farebox.

No fare media is issued on board Metro Connect or Metro Link.

Magnetic Stripe Tickets & Metro Connect Coupons

9-Day and Monthly Passes are available as magnetic stripe tickets. These passes can be purchased at the Kalamazoo Transportation Center with cash, check, or credit card. Riders can pre-order passes for pick up at the Transportation Center using CCTA's Passes, Coupons & Tokens Order Form, included below, using check or credit card. CCTA also accepts credit card orders over the phone. Orders for more than 50 passes can be mailed to the customer for a fee. 9 day and 31 day passes are activated upon first use at the farebox.

Metro Connect one-way coupons can also be purchased at the Kalamazoo Transportation Center or via pre-order. Metro Connect coupons are printed on paper.

Passes, Coupons & Tokens
ORDER FORM

METRO

6/12/2024

Qty.		Price	Totals
_____	**$4 Metro County Connect Coupon** - For a one-way trip. Must be certified as a person with a disability or senior citizen in Kalamazoo County.	**$4.00**	_____
_____	**$3 Metro County Connect Access Coupon** - For a one-way trip. Must be ADA certified to purchase.	**$3.00**	_____
_____	**Unlimited 9-Day Pass** - Unlimited rides for nine consecutive days *Non-Transferable*	**$20.00**	_____
_____	**Unlimited 31-Day Bus Pass** - Unlimited rides for 31 consecutive days *Non-Transferable*	**$60.00**	_____
_____	**Renewable Value Card** - Initial purchase provides $30 in rides + $5 card fee (reload card at Kalamazoo Transportation Center - no card fee)	**$35.00**	_____
_____	**Metro Transit Bus Tokens in Bulk @ $1.40 each** - Sold in 250 quantities. Bulk tokens are sold at the Kalamazoo Transportation Center ONLY.	**$350.00**	_____

(No mail orders) Allow two business days for order fulfillment. **Pick-Up Order Amount** _____

☐ **Please Mail Coupons/Passes to Address Listed Below**

All orders over 50 coupons/passes are sent via certified mail, unless you state otherwise.
Please inquire on postage amount for coupons orders over 200. Additional charges for mailing coupons/passes are:
1-50 coupons/passes = $1.00   51-100 coupons/passes = $5.50   101 - 200 coupons/passes = $6.50

Number of Passes/Coupons: ___0___ **Add Postage Here:** _____

TOTAL AMOUNT _____

Payment by (check one):   ☐ Check *(enclosed)*   ☐ Visa   ☐ Mastercard

Credit Card #:_____   Expiration Date:_____

3-digit Security Code:_____   Signature:_____

A new order form will be sent with your pass(es) . Please allow 10 business days for delivery.
DO NOT SEND CASH. Please print information below indicating where you want the pass(es) sent:

Name	*Phone #*
Address	*PO Box/Apt. #*
City	*State* *Zip Code*

Mail completed order form with credit card information or check/money order made payable to:
Metro, 459 North Burdick Street, Kalamazoo, MI 49007-3669
(269) 337-8695
Visit www.kmetro.com for information and additional order forms

Tokens

Single Ride tokens are accepted on fixed route buses. At the Kalamazoo Transportation Center, Single Ride, 14 Ride packs, and 250 Ride bulk packs of tokens are available for purchase. Bridge Card holders can also purchase discounted single ride tokens at the Transportation Center by presenting their Bridge Card and photo ID. Bridge Cards are State of Michigan's Electronic Benefits Transfer card. 250 ride bulk packs of tokens are also available for pre-order via the Passes, Coupons & Tokens Order Form but cannot be mailed.

Seven token machines are located throughout the CCTA service area. Token machines accept cash and dispense 14 Ride packs of tokens only and do not provide receipts. Token machines are located at the following locations:

- Kalamazoo Transportation Center
- Walmart (Gull Road location)
- Borgess Hospital
- Bronson Hospital
- Kalamazoo Valley Community College
- Portage Community Outreach Center
- Michigan Works
- Hardings

Token machines are provided by Standard Change Makers and were purchased by CCTA in 2001. CCTA has 10 token machines in total. Staff noted that eight to nine token machines are generally active with one to two machines down at any given time.

Smartcards

CCTA fixed route buses accept smartcards, integrated with the Genfare farebox system. Riders can only purchase a smartcard at the Kalamazoo Transportation Center or via the Passes, Coupons & Tokens Order Form. While available via the order form, CCTA avoids mailing smartcards due to concerns about data being erased while in transit. Initial smartcards cost $35 - a $5 card fee plus $30 in stored value. Smartcards can only be loaded with stored value used to purchase single rides. Stored value can only be loaded in person at the Transportation Center. In the case of lost or damaged cards, any remaining balance is lost and cannot be transferred to a new card.

Reduced fare riders can also use smartcards to receive their discounted fare on fixed route. To receive their discount, these riders must be pre-approved in person at the Transportation Center and receive a Metro photo ID which can also be used as a smart card. Metro photo IDs are provided for free initially and replaced for free every five years. Lost or damaged cards can be replaced for $10, however any remaining balance is lost and cannot be transferred to a new card. CCTA issues three different Metro photo IDs: Disabled, PCA (for PCA-eligible customers with disabilities), and Senior, as shown below.

Metro ID cards can also be used as proof of eligibility on the bus for cash payment. Smartcards of any kind are not accepted on Metro Connect or Metro Link.

Mobile Apps

Token Transit

Mobile ticketing for CCTA's services is provided by Token Transit. All Token Transit tickets are visually validated by the driver upon boarding, regardless of service. Reduced fare products, in addition to Adult fare products, are available in the app. Customers do not need to be pre-approved to purchase reduced fare products, but are warned when purchasing that they must present ID or Metro issued ID verifying their eligibility upon boarding as shown below.
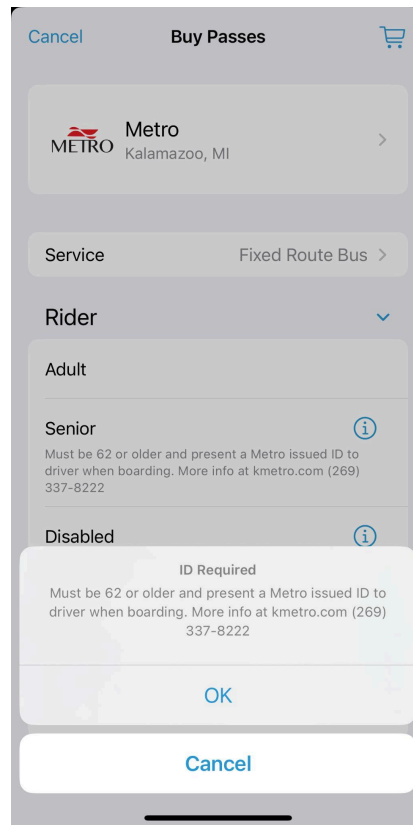
Riders are responsible for activating their ticket prior to boarding. On fixed route and Metro Link, CCTA has encountered issues with fraudulent replication of Token Transit tickets. This is particularly problematic on Metro Link where a single rider may be presenting tickets for multiple passengers and driver training and adherence to procedures for accepting Token Transit tickets is less consistent than on fixed route.

Accepted payment methods on Token Transit include credit/debit cards, Link (a payment storage integration wherein riders can link credit/debit cards or bank accounts), and Apple Pay and Google Pay. Token Transit also offers "Send a Pass" functionality, wherein anyone can pay online for a pass (using a credit/debit card) and send the purchased transit pass to any email address.

Via

Riders interested in using Metro Link can plan and pay for their trips in the Metro Link app provided by Via. Riders plan their trip and the app will suggest the best transit option for the route, whether it be by fixed route, Metro Link, or a combination. Accepted payment methods on the Via app include credit/debit cards. App users can also indicate their intention to pay on board Metro Link with Token Transit. Metro Link rides that include a fixed route vehicle as part of the trip are free; riders pay on board the fixed route vehicle using normal payment methods.

Other Mobile Apps

CCTA also offers a separate trip-planning app, called "myStop Mobile", provided by Avail Technologies. The app provides real-time vehicle tracking and trip planning information for fixed route, but no ticketing functionality.

Fare-Related Performance

This section describes CCTA's fare related performance between 2019 and 2024 using data provided to NTD. The COVID-19 pandemic significantly impacted ridership and fare revenue starting in 2020. Therefore, this analysis will focus on the trends following the COVID-19 pandemic as ridership returned.

It should be noted that Metro Link began operations in April 2024. 2024 does not represent a full year of operations, and, as such, the data should be treated with caution.

Key Indicators

Ridership

In 2024, there were 1.7 million unlinked passenger trips on Metro (Fixed Route) compared to 135,000 trips on Metro Connect (of which 50,000 were ADA trips and 85,000 were on-demand) and 11,000 Metro Link trips. Metro and Metro Connect ridership is still below 2019 levels but is increasing. Metro Connect on-demand ridership saw a smaller decrease in ridership, associated with the COVID-19 pandemic, compared to ADA ridership

Figure 2. Ridership by Mode
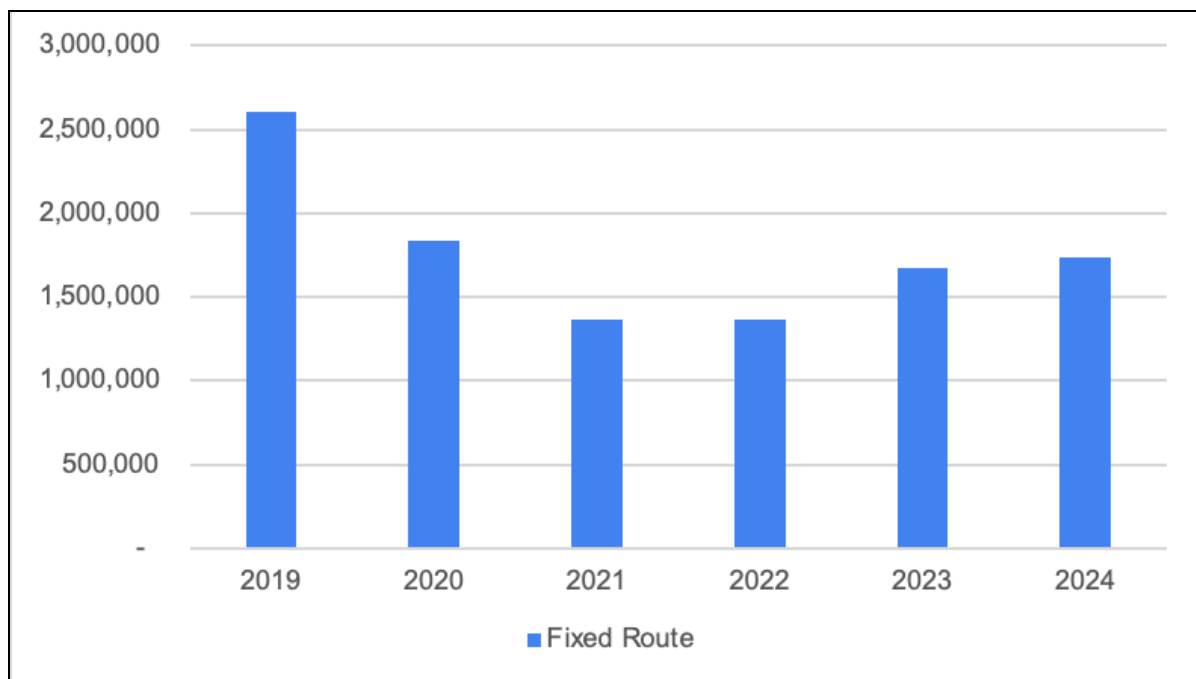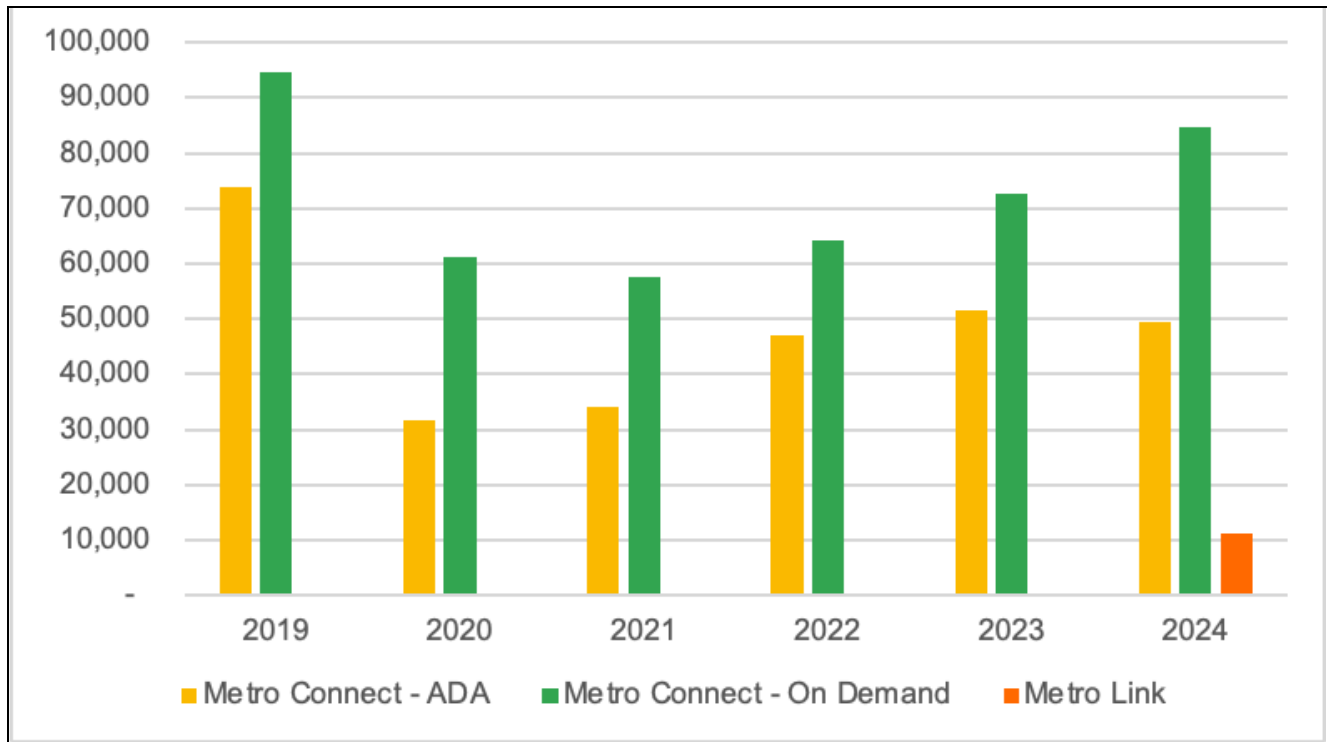
Fare Revenue

In 2024, Metro fare revenue was $2.6 million, just 1% below 2019 levels. Metro Connect ADA fare revenue was $126,000 (42% below 2019 levels) and On-Demand fare revenue was $364,000 (9% below 2019 levels). Metro Link fare revenue was $10,000.

In 2022 and 2023, CCTA received $1.2 million in organization paid fares from the contract with Western Michigan University for the pass program. This is expected to continue for the duration of the contract.

Figure 3. Fare Revenue by Mode


Figure 3. Fare Revenue by Mode
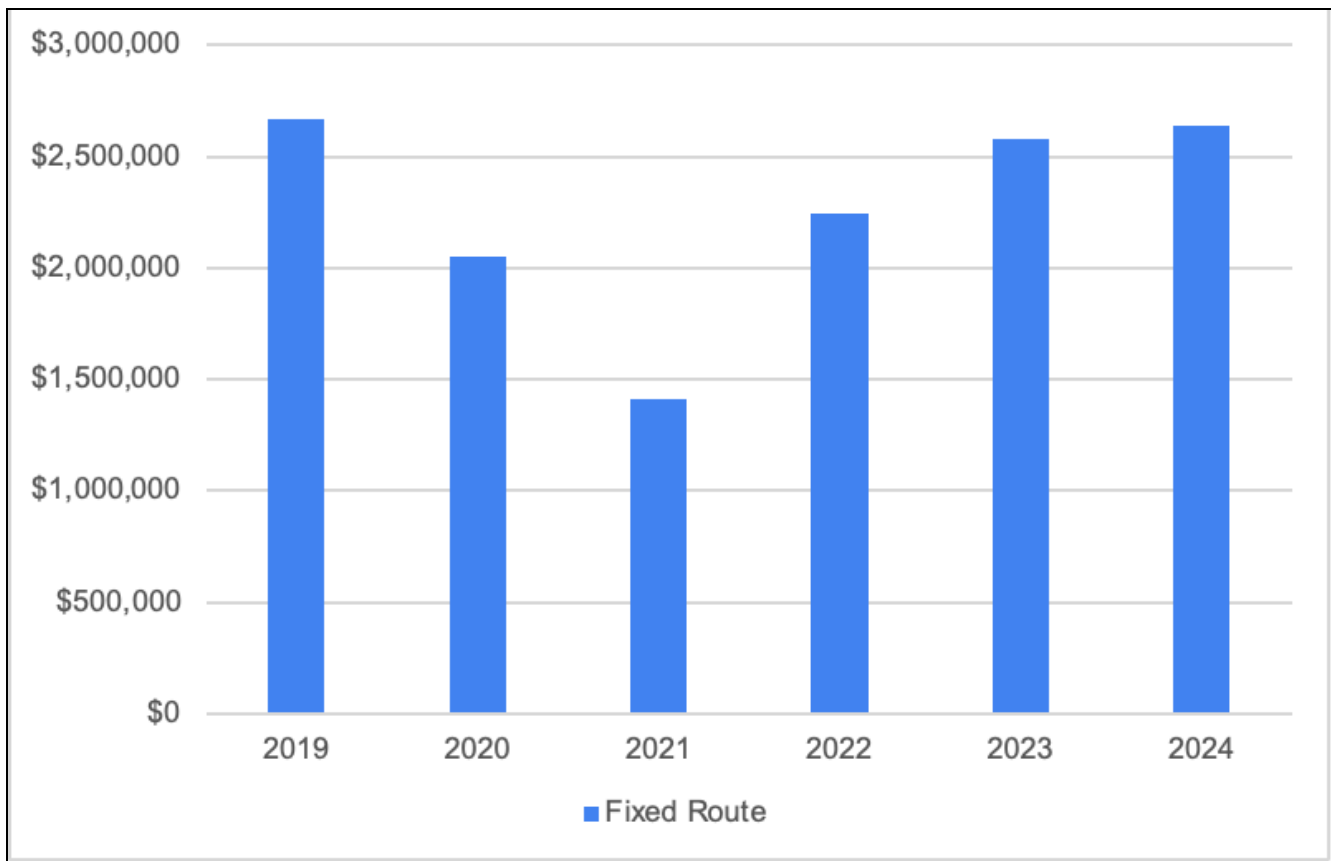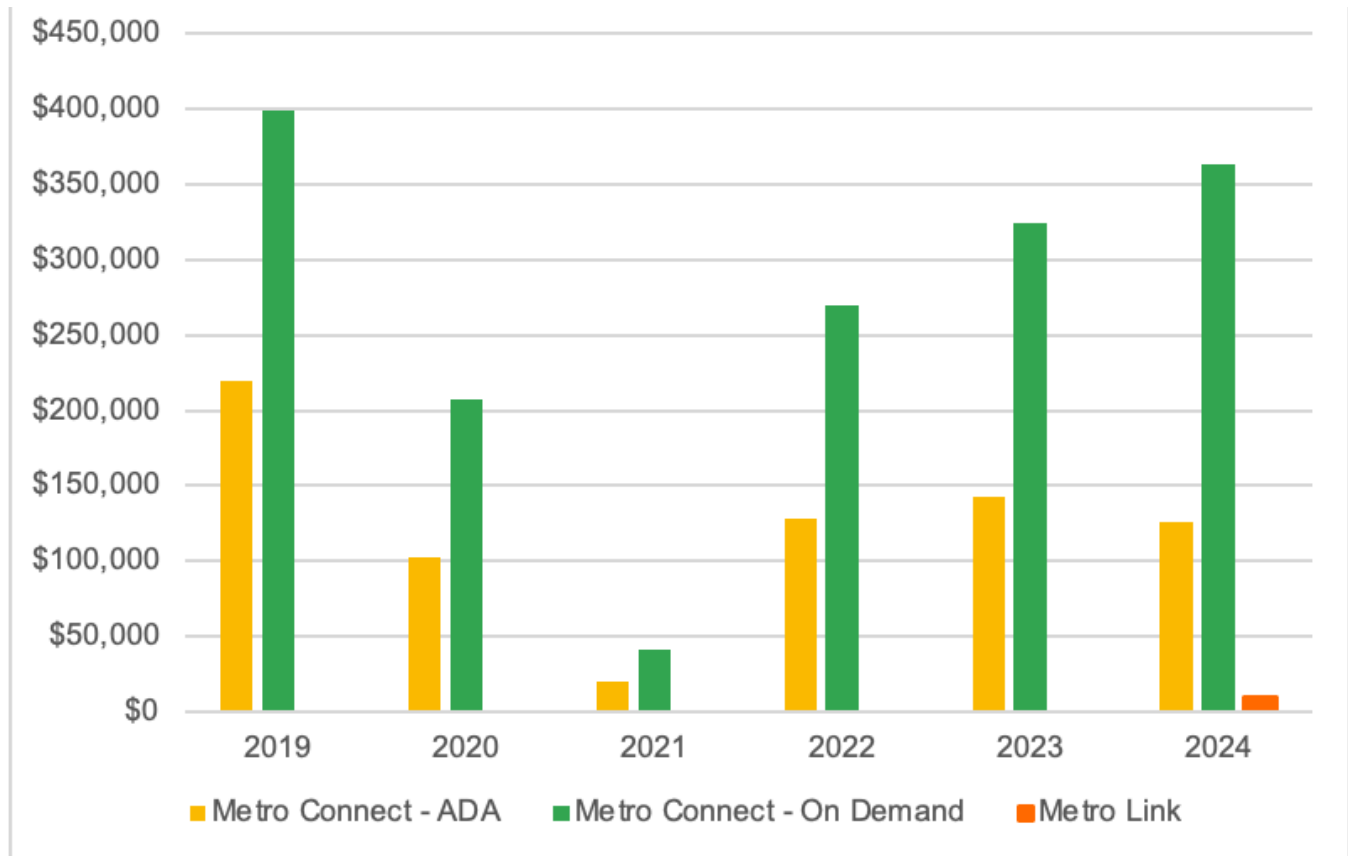
Average Fare per Passenger

The average fare per passenger for Metro and Metro Link are lower than the average fare per passenger for Metro Connect (both ADA and on-demand). CCTA didn't charge fares on Metro Connect between April 2020 and August 2021.

In 2024, the average fare per passenger for Metro was $1.52. The average fare per passenger increased from 2021 to 2022, but has since decreased. The average fare per passenger has been impacted by the $1.2 million in organization paid fares from Western Michigan University for the pass program in 2022 and 2023.

Metro Connect ADA average fare per passenger is $2.55 compared to $4.30 for on-demand. Metro Link average fare per passenger is $0.88. (Correct to the nearest 1 cent.)

**Figure 4. Average Fare per Passenger by Mode**
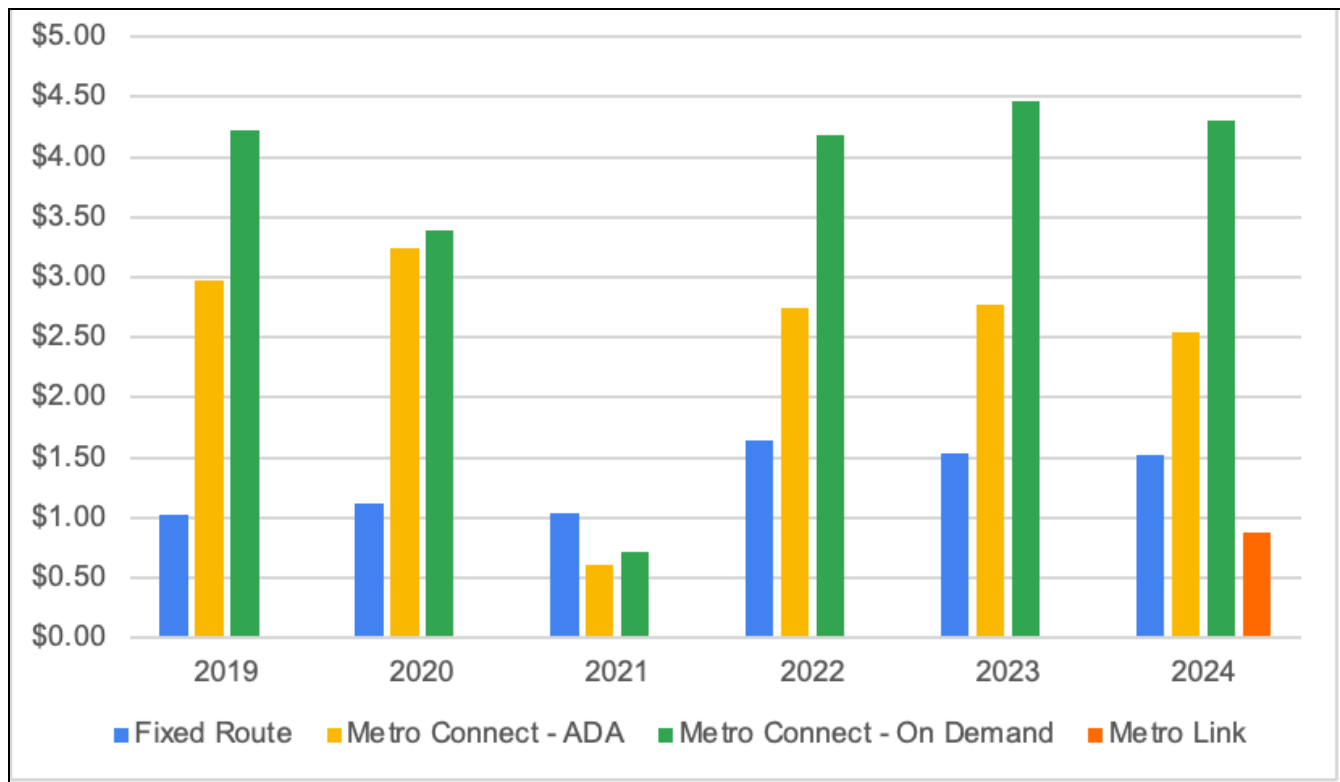
Operating Costs

Total operating costs for Metro have increased since 2021, increasing from $10.7 million to $13.2 million (23% increase). Metro Connect costs have also been increasing, though there was a small decrease between 2023 and 2024. In 2024, Metro Connect's total operating cost was $5.5 million and Metro Link was $908,000.

Figure 5. Total Operating Costs by Mode
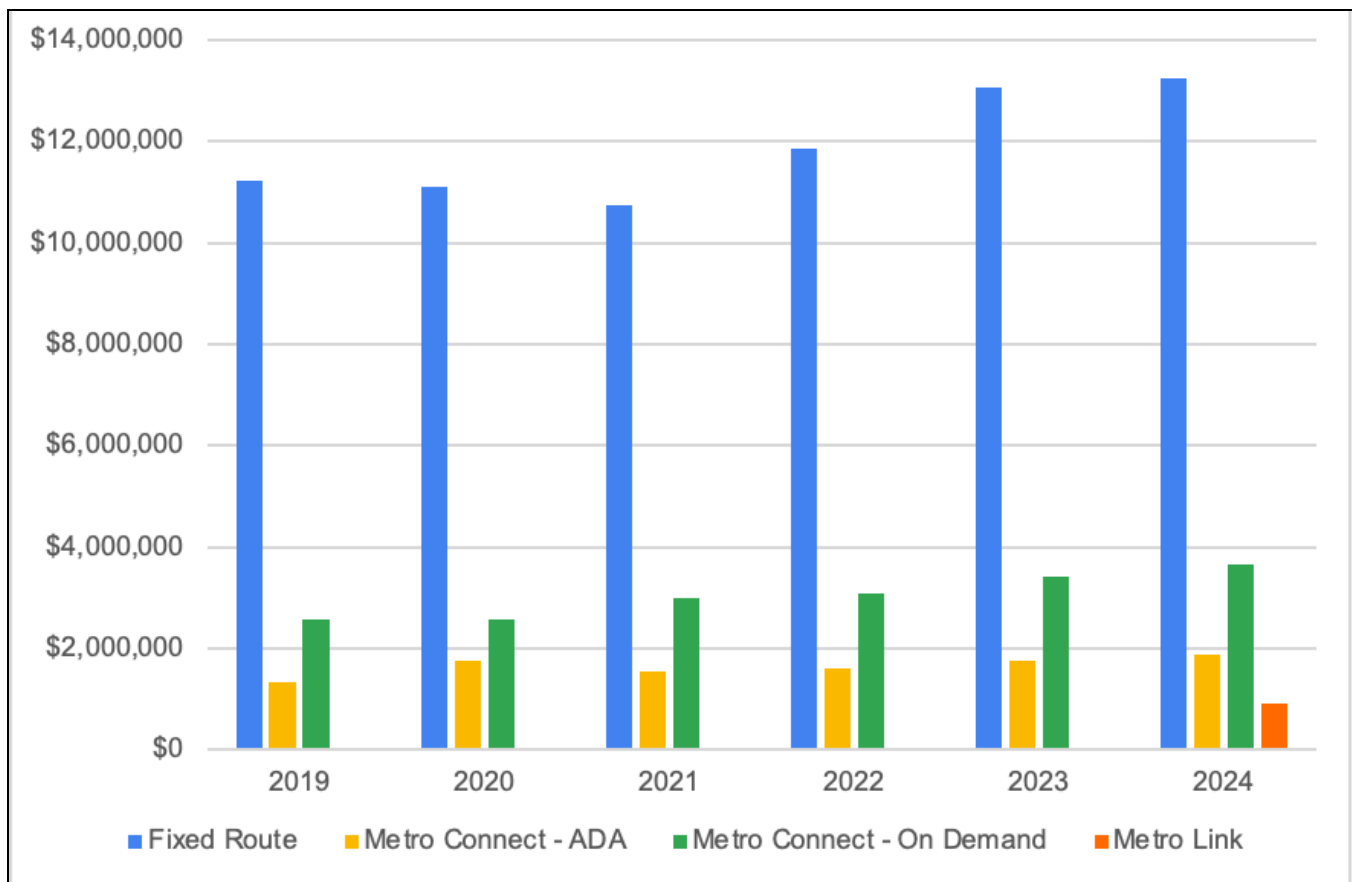
Subsidy per Boarding

Subsidy per boarding is calculated by subtracting the average fare per boarding from the operating cost per boarding. There was an increase in the subsidy per boarding between 2019 and 2020 due to reduced ridership as a result of the COVID-19 pandemic. While the total operating cost increased slightly, there was a significant decrease in ridership leading to a large increase in the operating cost per boarding.

For Metro, the highest subsidy per boarding was $7.07 in 2022. It has decreased since 2022 to $6.10 in 2024. Metro Connect - ADA subsidy per boarding increased between 2023 to 2024 to $35.39 and the Metro Connect - On Demand subsidy per boarding has been decreasing since 2021 and, in 2024, was $38.85. Metro Link subsidy per boarding is $18.11.

Figure 6. Subsidy per Boarding by Mode
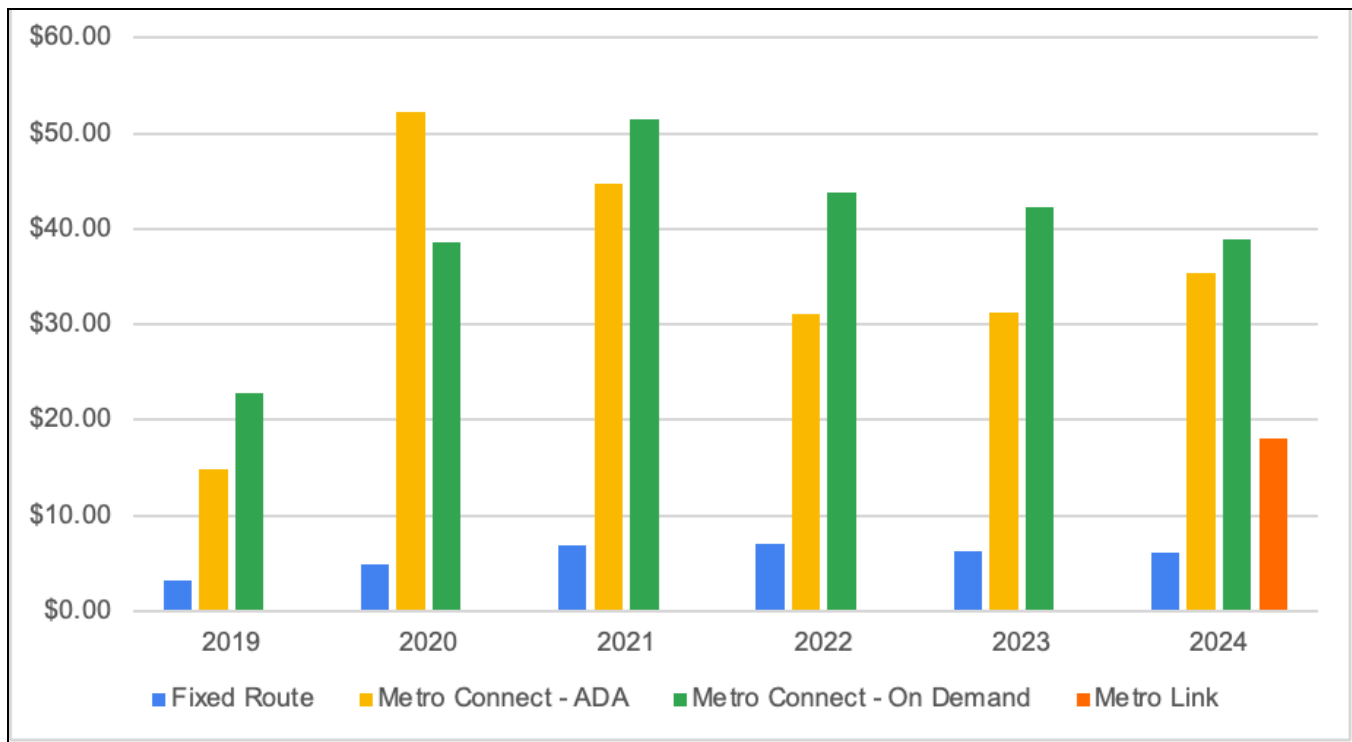
Farebox Recovery Ratio

The farebox recovery ratio is calculated by dividing passenger fare revenues by operating expenses. This represents the percentage of operating expenses covered by fares.

Metro farebox recovery was 20% in 2024 similar to the rate in 2019. Metro Connect's farebox recovery was 9% which is higher than 2019. Metro Link was 1%.

Figure 7. Farebox Recovery by Mode
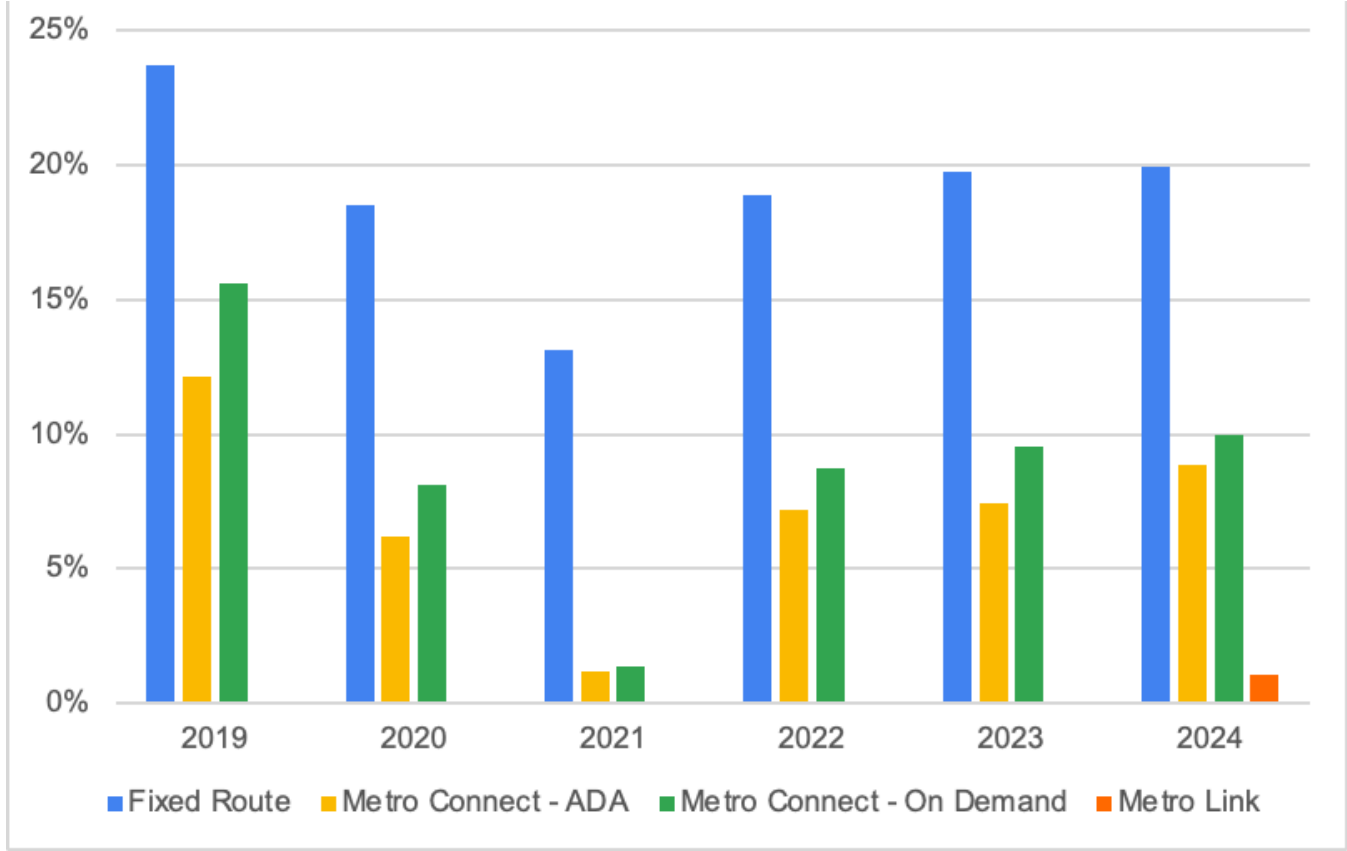
Fare Product Sales

This section analyzes which fare products are purchased by riders for the different modes CCTA operates.

Metro (Fixed Route)

The table and chart below shows the sales of different Metro fare products. The majority of sales are for Single Ride fare products. It should also be noted that 7% of sales are Bridge Card reduced rate tokens for riders receiving SNAP benefits.
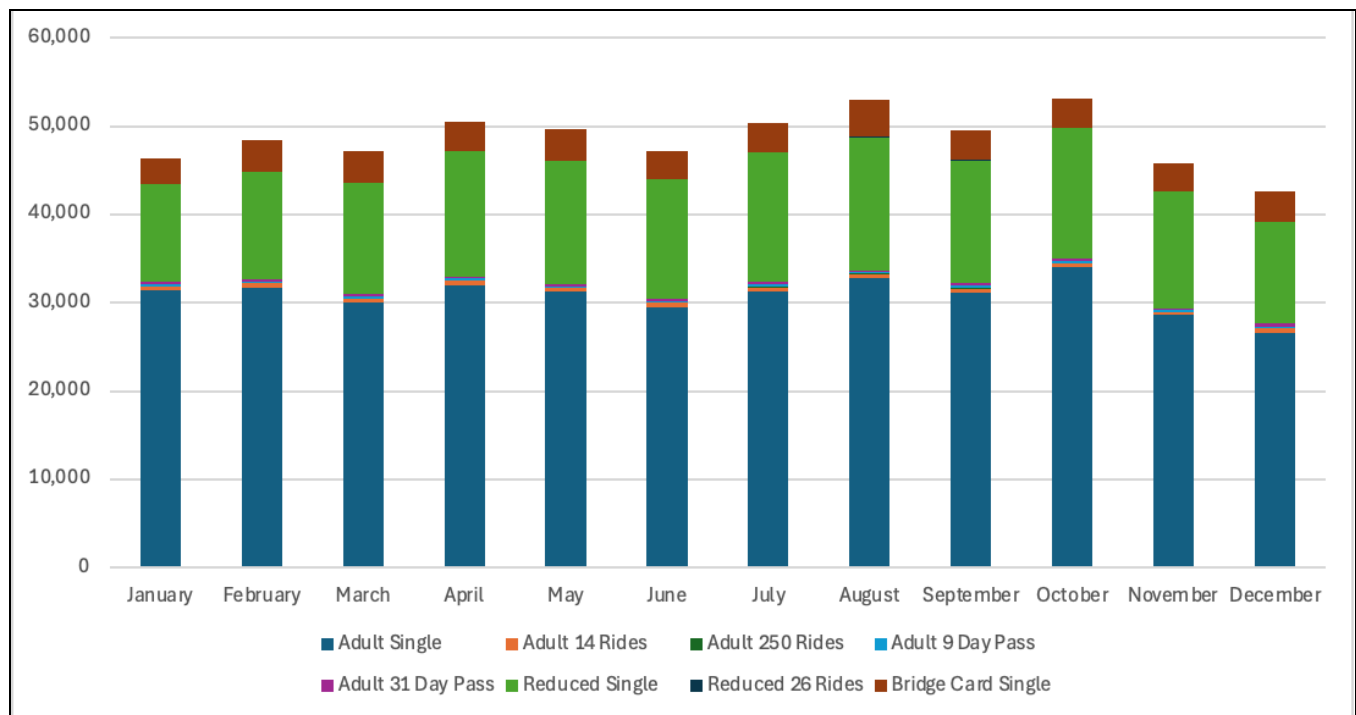
Table 8. Metro Fare Product Sales

Rider Type	Fare Product	Proportion of Sales (2024)
Adult	Single Ride	63%
	14 Rides	1%
	250 Rides	0.1%

Rider Type	Fare Product	Proportion of Sales (2024)
	9-Day Pass	0.5%
	Monthly Pass	0.5%
Reduced	Single Ride	28%
	26 Rides	0.1%
Bridge Card	Single Ride	7%
Total		100%

The chart below shows how fare product sales vary over the year using 2024 data.

Figure 8. Metro Fare Product Sales

The table below shows the fare media for Metro fare products used to purchase fares in 2024. Over half of sales are made using cash on board buses. Token Transit and Renewable Cards each account for a fifth of total sales.

Table 9. Metro Fare Media Transactions

Fare Media	Proportion of Sales
Token Transit	20%

Fare Media	Proportion of Sales
Tokens	9%
Renewable Cards	18%
Cash on Board	52%
Magnetic Stripe Card	1%
Total	**100%**

Metro Connect (Paratransit and On-Demand)

CCTA offers subscriptions for Metro Connect which allow riders to reserve regularly occurring trips on a monthly basis in advance. Fares are paid in full for the whole month and the subscription is for a minimum of three months. The number of subscriptions sold for children and adult fares are very small, less than 10 per year, so they have not been separated out in the analysis below.

The chart below shows the Metro Connect fares purchased by rider type. Approximately 40% of Metro Connect fare sales are Access and 60% are Seniors, only a small number of sales are for adults and children.

Figure 9. Metro Connect Sales
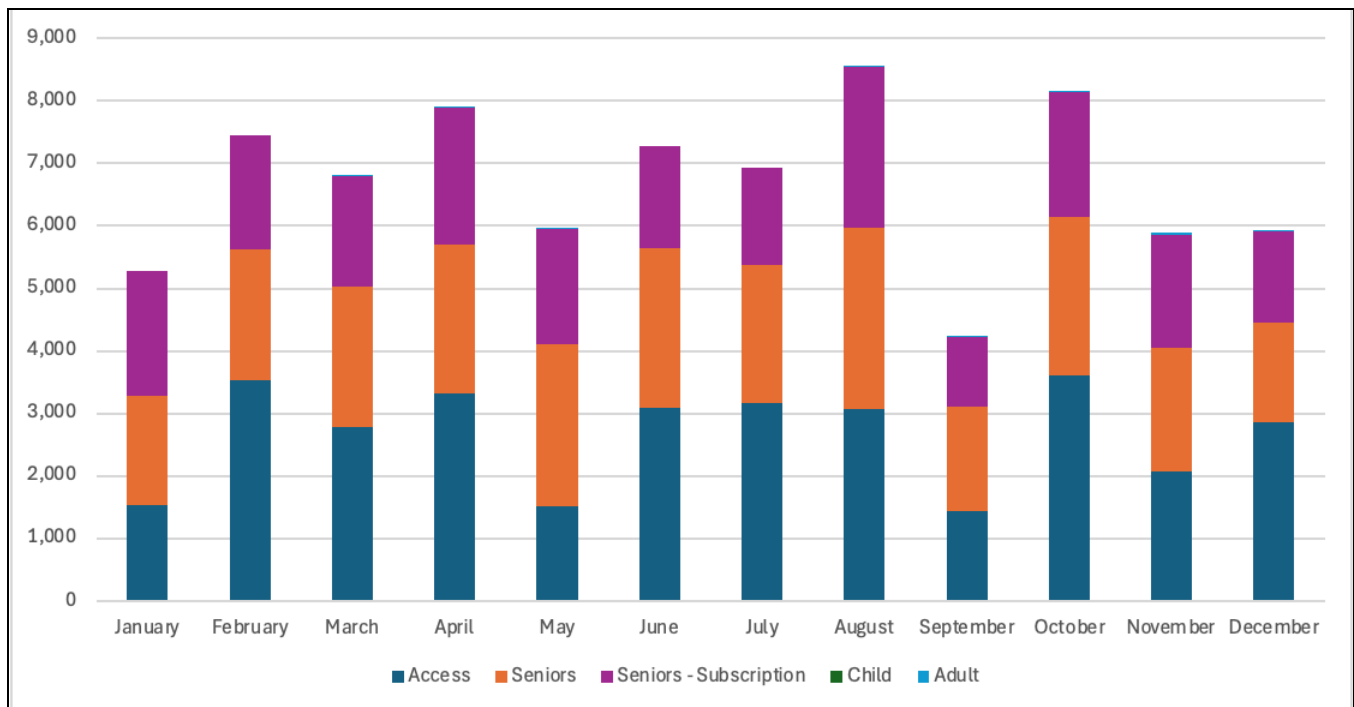
The majority of sales are made directly to CCTA (91% are direct to CCTA and 9% through Token Transit).

The chart below shows how fares are paid on Metro Connect. Approximately a quarter of Metro Connect fares are paid through subscription, a third are pre-paid and the rest are collected on the vehicle.

Figure 10. Metro Connect Sales by Payment Type
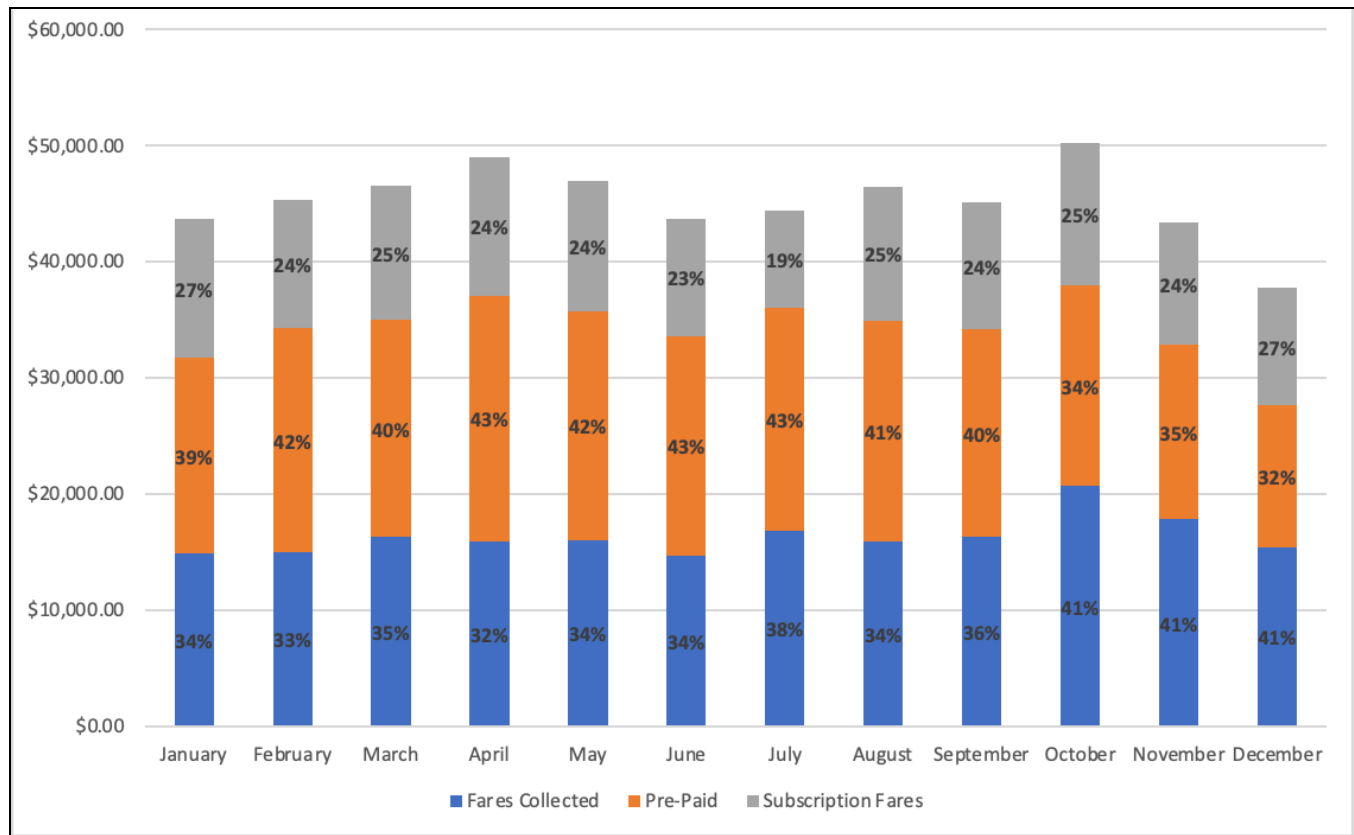
Microtransit

As Microtransit service started in April 2024, it is too early to draw conclusions from sales data. Due to problems in driver training, sales data may not be accurate due to drivers incorrectly counting fares.

The data shows that the majority of fare product sales are for Adult fares (approximately 88%). Fares can be purchased through Token Transit and via debit and credit cards on the Via app. Based on the available data, 56% of sales are through Token Transit with the rest from Via.

Figure 11. Microtransit sales
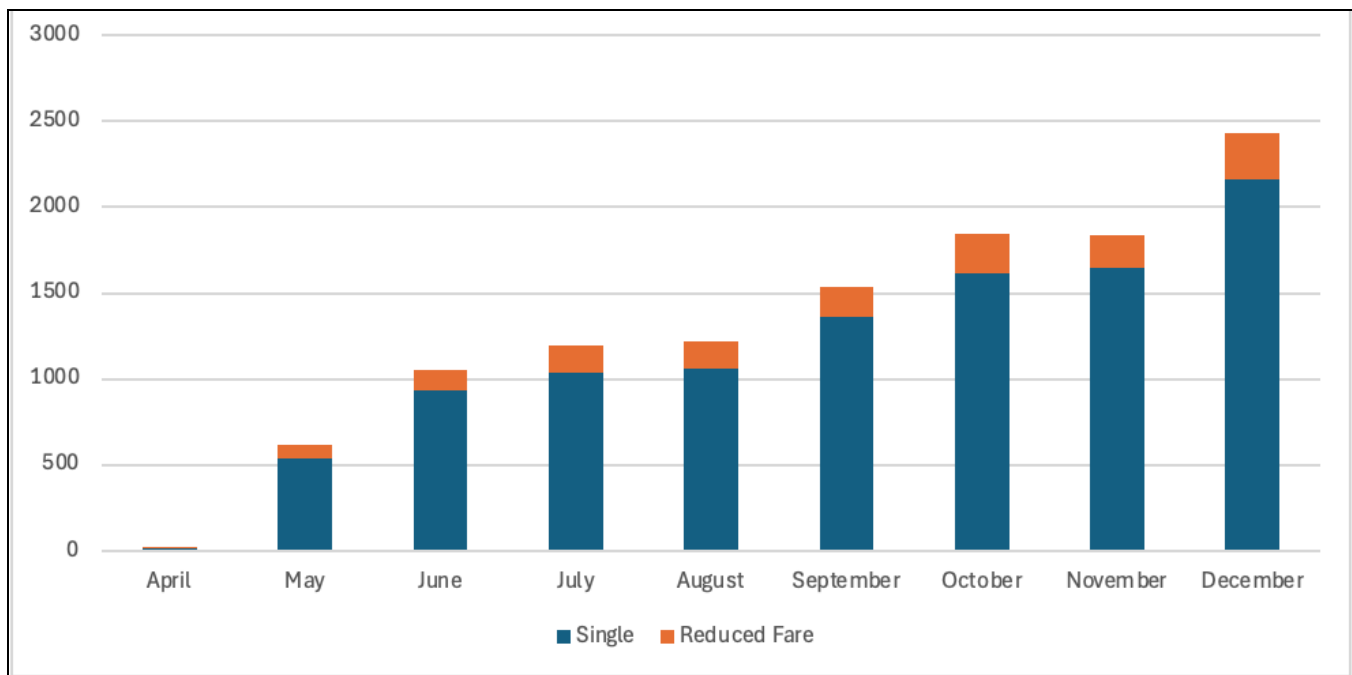
If a rider's trip includes a transfer to/from Metro (fixed route bus), the Metro Link leg is free. CCTA is able to deduce the Metro Link trips that include a transfer to fixed route bus by analyzing the origin and destination information for each trip. Metro Link trips are entirely within the origin zone and riders can not travel to another Metro Link zone without transferring to a fixed route bus. The chart below shows the proportion of Metro Link trips which include a transfer to Metro (fixed route bus). As the Metro Link service is relatively new, it is unlikely that the trend in transfers has reached a steady state but the rate is currently relatively low.

Figure 12. Transfers from Metro Link to Metro (fixed route)
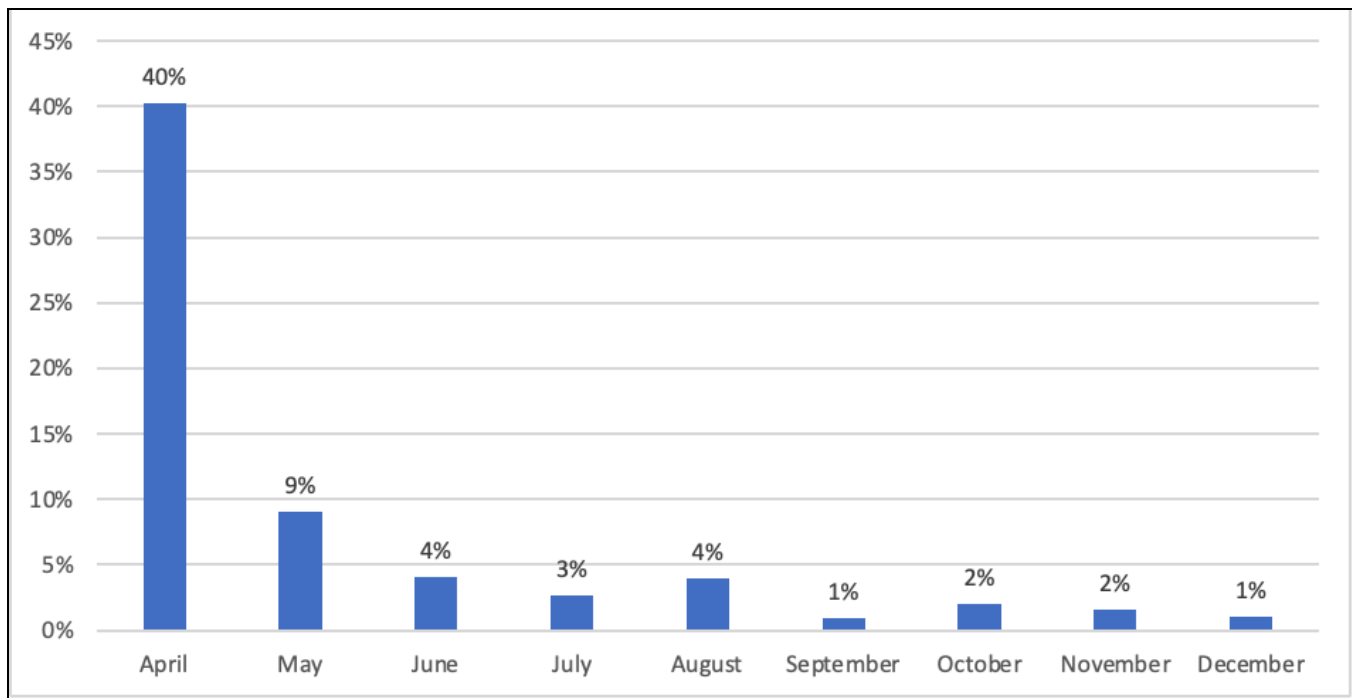
Rider Demographics

In 2023, a survey was completed using Survey Monkey and distributed onboard fixed route buses. A total of 414 samples were collected. In October and November 2024, a similar survey was distributed to passengers with 285 surveys collected through both paper form and online surveys taken by passengers.

Some key findings from the survey are:

- **Most passengers use cash or tokens to pay the fare.** 19% use a phone app to pay (Token Transit). Looking at the future payment options, 12% stated they would use a debit/credit card, 17% would use an app, and 20% would use a token or continue to use cash.
- **There is a high proportion of frequent riders.** 48% of passengers took the bus more than 6 or more times per week. 20% took the bus 3-4 times per week, followed by 16% taking the bus 5 times a week.
- **The majority of riders frequently make a transfer on their trips.** 71% of riders use a transfer.
- **The majority of riders are working age.** 1% of riders are under 15 and 11% are over 61.
- **Approximately half of riders are minorities.** Survey responses noted passengers at White (49%) and Black (28%). 7% reported being Asian and 6% were bi-racial/multi-racal.
- **A high proportion of riders are from households with low incomes.** Over 90% of riders report household incomes less than 200% of the Federal Poverty Level (FPL). 200% FPL is the most commonly used income threshold for low-income transit fare programs. It is also the income threshold for SNAP (Supplemental Nutrition Assistance Program).

Fare Product Usage

Metro (Fixed Route)

The table below shows the proportion of trips made using different fare products. Over a third of trips are made using Single Rides (both Adult and Reduced fares).

Table 10. Metro Fare Product Trip Distribution

Rider Type	Fare Product	Proportion of Trips (2024)
Adult	Single Ride[1]	27%
	9-Day Pass	1%
	Monthly Pass	4%
Reduced	Single Ride	8%
Pass Programs	KVCC	0.5%
	Bronson Hospital	1%
	Western Michigan	19%
	Youth Mobility	2%
Token Transit[2]		14%
Transfers		23%
Free		0.3%

Note:
1. Includes all trips made with physical tokens Single Ride, 14 ride, 250 rides and Bridge Card)
2. Token Transit fares are visually validated. It is not possible to determine which fares are being used to board the bus.

The table below shows the proportion of riders made using different fare media. The most commonly used are transfers and pass programs (both 23%) with cash on board next (17%).

Table 11. Metro Fare Media Trip Usage

Fare Media	Proportion of Trips
Transfers	23%
Pass Programs	23%

Fare Media	Proportion of Trips
Cash On Board	17%
Token Transit	14%
Tokens	12%
Renewable Cards	6%
Magnetic Stripe Pass	5%
Free	0.3%
Total	**100%**

Metro Connect and Metro Link

CCTA only sells Single Ride fares for both Metro Connect and Metro Link so there is no difference in the charts between sales and trips.

Fare Collection System Costs

In this section, we have consolidated information on existing fare collection costs across CCTA's services.

Table 12. Estimated Annual Fare Collection Costs

	Annual Cost	Source Notes
Fare Distribution & Collection		
Armored Car Service	$13,200	CCTA 2024 costs
Token Transit Mobile Ticketing Fee	$36,000	Based on 2024 sales ~$30k/mo, fee is 10%
Via Ticket Fees	$2,300	Stripe fee is 2.9% + $0.30/transaction 5,175 Via ticket purchases Apr-Dec 2024, scaled to 12 months with 78% of purchases being Adult fare
Bank Card Processing for KTC Transactions	$2,400	January 2025 fare revenue by CC: $43,807
Fare Media Costs		
Smart Cards	$8,400	Based on ~4,200 distributed smart cards in 2024 at $2 cost/card
Smart Card Printing	$2,000	Based on ~4,000 printed smart cards/yr at cost of $0.50 to print

	Annual Cost	Source Notes
Farebox Tickets	$23,000	Provided by CCTA
Coupons	$2,000	Provided by CCTA
Tokens	$800	Assumes $0.15/token; 25k tokens purchased every 5 years
Hardware Maintenance Costs		
Farebox Labor and Parts	$828,000	$1,500/machine/month, 46 fareboxes
Farebox Software Maintenance and Support	$11,100	CCTA 2025 costs
Token Machine Restocking, Labor, and Parts	$4,800	Est. of labor based on two people, 1 hr/machine at $20/hr
	$929,200	**ANNUAL TOTAL**

These cost estimates do not include staff time associated with fare distribution, such as processing transactions at the Kalamazoo Transportation Center, coordinating special agreements with other entities and processing those billings, or any fare distribution beyond token machine restocking.

These cost estimates also do not take into account capital investments associated with fare collection equipment that may need to be upgraded or replaced in the future, such as the cost of new fareboxes ($7,500-$15,000/farebox, exclusive of new vaulting equipment, installation, or up-front licensing costs) or new smartcard printers ($2,000-$3,000/printer).

Key Findings

This section highlights the key findings from the review and analysis of CCTA's fare structure and technology.

Metro

- Metro offers a range of time-based period passes. The 9-Day Passes are not heavily used by riders.
- The majority of Metro riders purchase Single Ride fares, increasing the number of transactions that the riders and CCTA need to complete.
- Metro offers a large number of fare media options. This gives riders a choice of fare media which meets their needs, however it may make it more complex for riders to understand. The added complexity requires additional administration and overhead from CCTA.
- Almost a quarter of trips are made using transfers between fixed route buses, suggesting a day pass may be useful to reduce the number of transfers bus operators need to distribute.
- Metro has a number of pass programs which are well used.
- A high proportion of riders with low-income and approximately 3,500 Bridge card discount tokens are purchased each month.

Metro Connect

- The Metro Connect fare structure is complex with different fare prices for different rider types and subscription offers.
- The subscriptions for adults and children are not well used.

Metro Link

- The Metro Link fares match Metro fares making the fare structure easier to understand for riders.
- As Metro Link is a new service, riders need more time to become accustomed to the service and determine what fares to purchase. The data should be treated with caution.
- There have been challenges with sales of Metro Link fares via Token Transit. CCTA is investigating and monitoring the issues, and is offering more training for bus and Metro Link operators.

Fare Technology

- The large number of fare media options offered forces CCTA to maintain a number of different fare technology systems.
- A significant proportion of trips are made using physical tokens, which require a lot of effort/cost for CCTA to distribute.
- The large upfront cost to obtain a renewable card ($35 - $5 for card, $30 in stored value) may be discouraging riders from using this fare technology.
- Smartcard purchases and reloads are only available in person, which may be discouraging riders from using this fare technology.
- High onboard cash usage is costly for CCTA and is likely increasing dwell times compared to other payment methods as riders find the correct change.

Appendix B: Peer and Industry Review

Central County Transportation Authority Fare Study

Task B: Peer Review

Prepared For:	Central County Transportation Authority Fare Study
Prepared By:	Four Nines Technologies
Date:	April 22, 2025

Introduction

This report describes the findings from the peer review for the Central County Transportation Authority (CCTA) Fare Study. The fare study aims to recommend fare structures and fare collection hardware and software that meet Metro's current and future plans. The recommendations will be aimed at reducing confusion among internal and external stakeholders, reducing administrative cost and upkeep, and providing quality, easy-to-use options to increase ridership on all modes.

This peer review compares public transit providers operating in communities with similar demographics as Kalamazoo County, as well as systems with similar ridership and services. The report reviews their fare structures and fare policies, as well as technology usage. The report highlights key findings and best practices amongst CCTA's peers.

Peer Agencies Selection Methodology and Resulting List

The following peer agencies were chosen as they are similar to CCTA in several ways. The peer agencies have similar levels of annual ridership, and comparable service areas and population sizes. Four Nines used the iNTD Likeness Score from the Urban Integrated National Transit Database (Urban iNTD), which collates and integrates NTD data, to determine which agencies are most similar to CCTA. The Four Nines Team and CCTA staff further narrowed the list of peer agencies to the following six agencies:

- City of Appleton (Appleton, WI) https://myvalleytransit.com/vt-connector/
- Fort Wayne Public Transportation Corporation (Fort Wayne, IN) http://www.fwcitilink.com/

- Greater Peoria Mass Transit District (Peoria, IL) https://www.ridecitylink.org/
- MTA Flint (Flint, MI) https://www.mtaflint.org/
- South Bend Public Transportation Corporation (South Bend, IN) http://www.sbtranspo.com/
- Toledo Area Regional Transit Authority (Toledo, OH) http://www.tarta.com/

Table 1. Summary of Peer Agencies

| Agency	Location	Modes Operated	Service Area (miles)	Service Population	Population Density	Annual Unlinked Passenger Trips	Annual Fare Revenue	Annual Operating Costs	Farebox Recovery Rate
Central County Transportation Authority	Kalamazoo, MI	Fixed Route Paratransit Microtransit	580	261,670	451	1,799,216	$3,049,785	$19,399,894	16%
City of Appleton	Appleton, WI	Fixed Route Paratransit Microtransit	117	276,683	2,365	777,302	$1,113,745	$8,270,226	13%
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	Fixed Route Paratransit Microtransit	123	279,469	2,272	1,561,932	$1,390,091	$17,721,032	8%
Greater Peoria Mass Transit District	Peoria, IL	Fixed Route Paratransit Microtransit	105	240,110	2,287	1,871,743	$1,494,964	$26,093,814	6%
Mass Transportation Authority	Flint, MI	Fixed Route Paratransit Microtransit	640	405,813	634	2,913,347	$4,763,406	$49,624,815	10%
South Bend Public Transportation Corporation	South Bend, IN	Fixed Route Paratransit	68	154,346	2,270	1,252,820	$1,282,495	$11,568,358	11%
Toledo Area Regional Transit Authority	Toledo, OH	Fixed Route Paratransit Microtransit	237	399,700	1,686	1,891,108	$1,960,512	$32,983,277	6%
Peer Average			**267**	**288,256**	**1,709**	**1,723,924**	**$2,150,714**	**$23,665,917**	**10%**

Data: NTD 2023

Peer Performance Metrics

Fixed Route

This section compares key NTD fare-related performance data for the six peer agencies for fixed route (bus) only. CCTA has higher fare revenue per boarding and higher farebox recovery than the peers included in this research. CCTA also has lower operating costs per boarding than the average of the six peers.

Fare Revenue per Boarding

CCTA has the second highest fare revenue per boarding of the six peers, $1.54 compared to the average of $1.08.

Figure 1. Fare Revenue per Boarding--Fixed Route
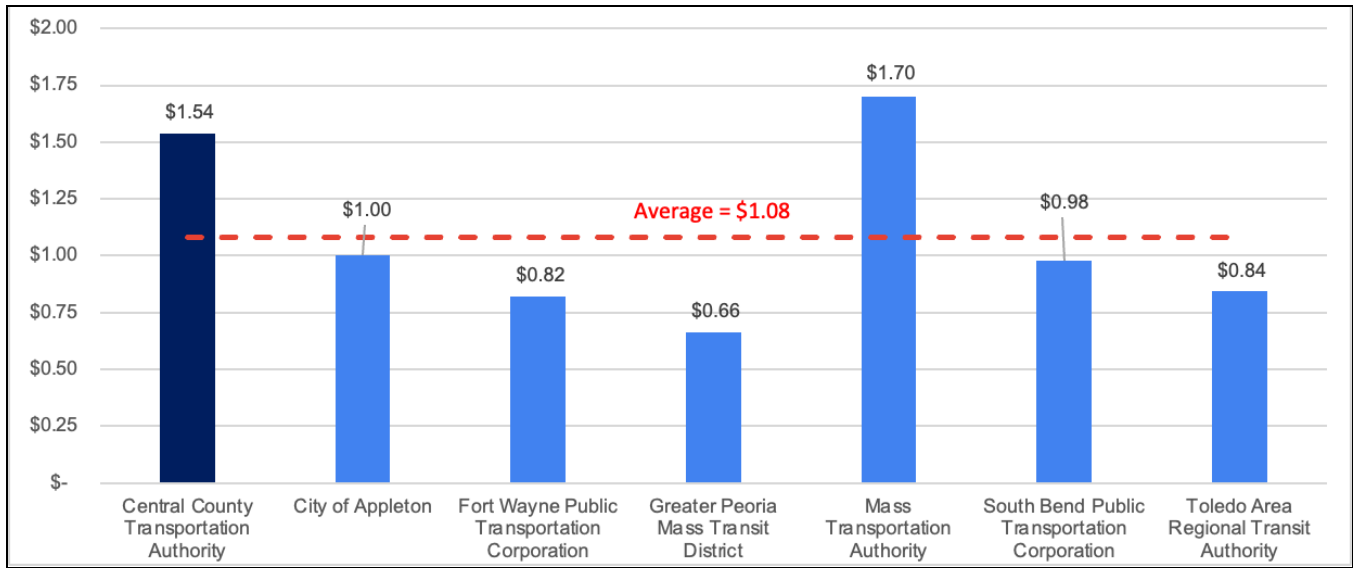
Data: NTD 2023

NTD fare revenue is split into passenger paid fares and organization paid fares. NTD defines organization paid fares as the revenue earned for rides given in regular transit service, but paid for by some organization rather than by the rider; and for rides given along special routes for which revenue may be generated by a beneficiary of the service. CCTA and 3 of the peer agencies received organization paid fares in 2023 which will increase the average fare calculation.

Agency	Location	Organization Paid Fare	Organization Paid Fares as a proportion of Total Fare Revenue
Central County Transportation Authority	Kalamazoo, MI	$1,220,117	47%
City of Appleton	Appleton, WI	$116,946	17%
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	$309,727	25%

Agency	Location	Organization Paid Fare	Organization Paid Fares as a proportion of Total Fare Revenue
Greater Peoria Mass Transit District	Peoria, IL	$0	0%
Mass Transportation Authority	Flint, MI	$0	0%
South Bend Public Transportation Corporation	South Bend, IN	$0	0%
Toledo Area Regional Transit Authority	Toledo, OH	$215,123	16%

Subsidy per Boarding

The subsidy is determined by subtracting the total fare revenue from the total operating cost for fixed route service. This is divided by the number of fixed route boardings to derive the subsidy per boarding. The higher the subsidy per boarding, the larger the alternative funding sources required to maintain service.

CCTA's subsidy per boarding for fixed route service is below the average for the six peers ($6.26 compared to $8.78).

Figure 2. Subsidy per Boarding--Fixed Route
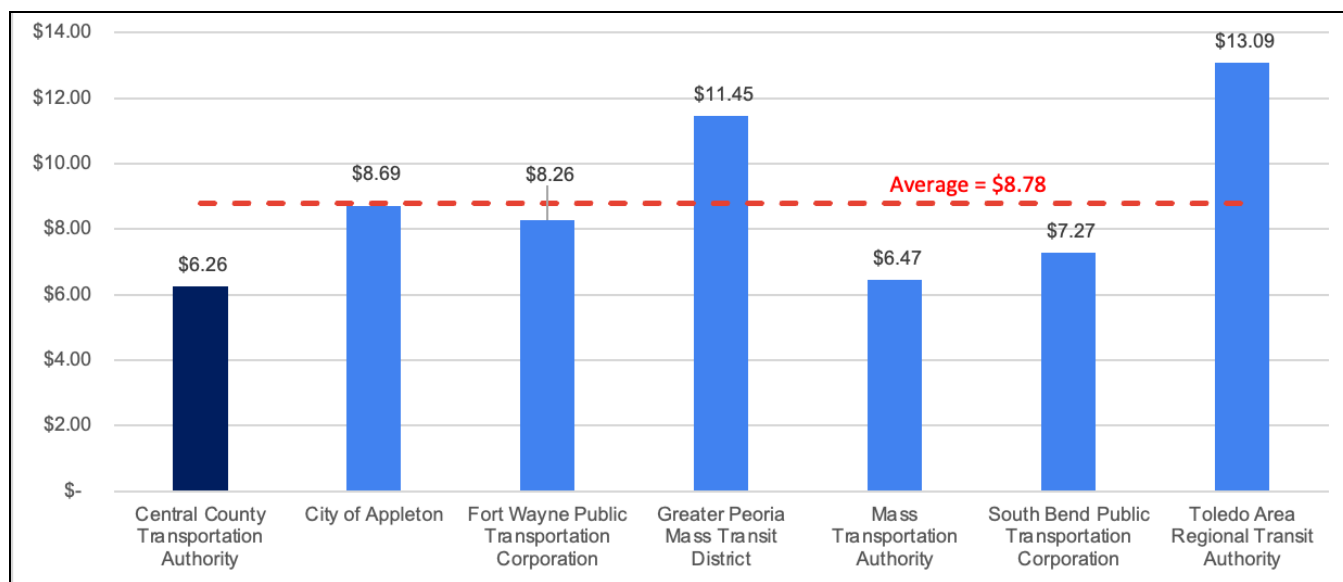
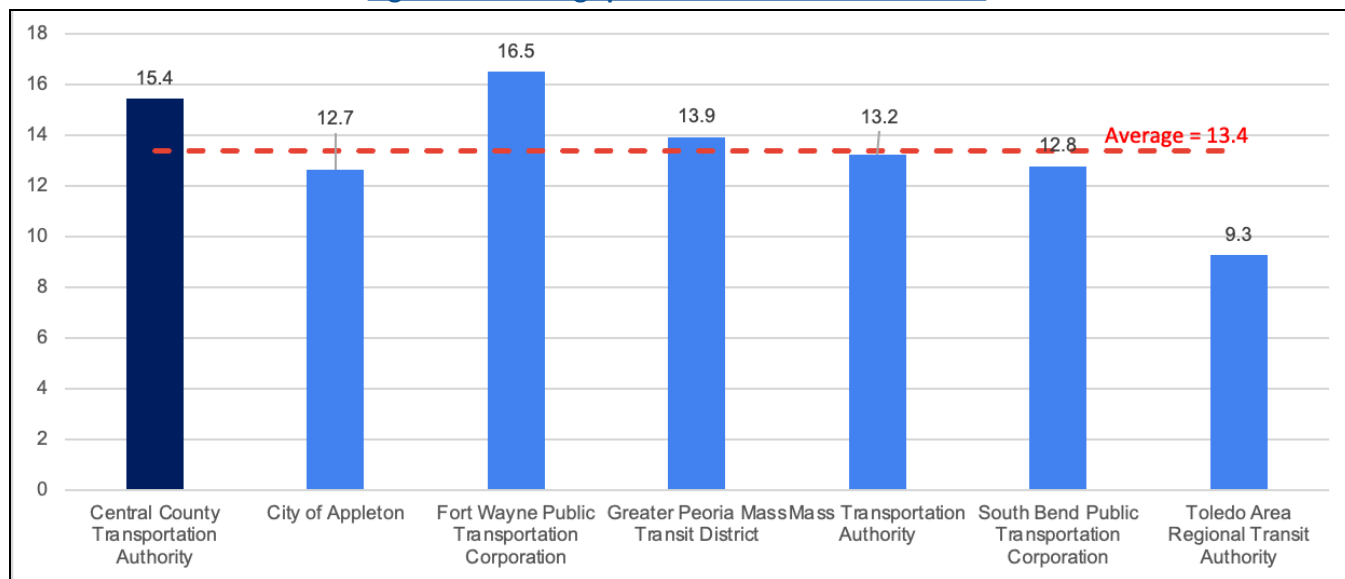Data: NTD 2023

Farebox Recovery Ratio

Farebox recovery demonstrates the proportion of operating costs that are covered by fare revenue received from riders. CCTA's farebox recovery for fixed route service is among the highest of the six peers (20% compared to an average of 12%).

Figure 3. Farebox Recovery--Fixed Route
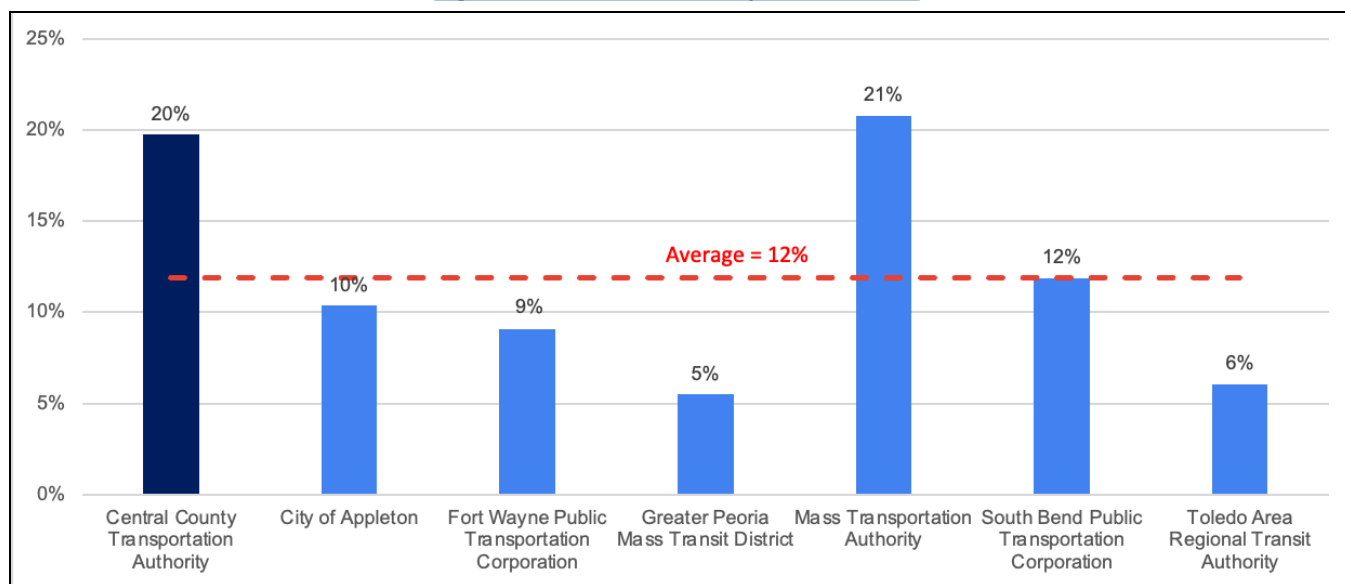
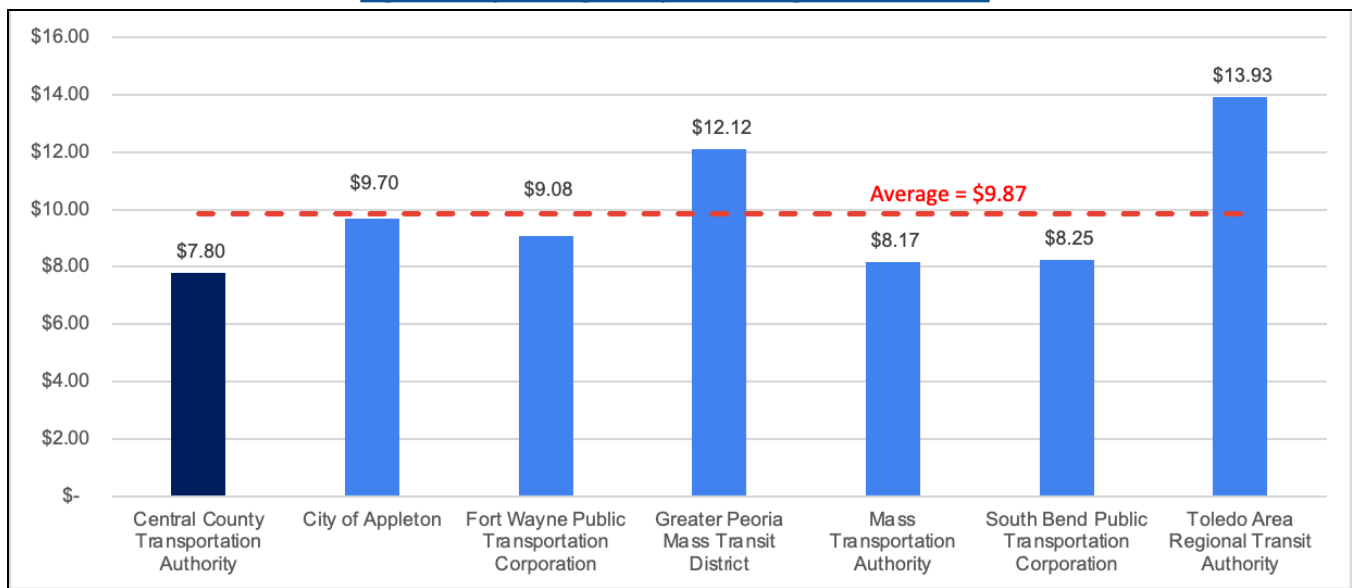Data: NTD 2023

Boardings per Revenue Hour

CCTA's number of boardings per revenue hour are above the average for the six peers (15.4 compared with an average of 13.4).

Figure 4. Boardings per Revenue Hour--Fixed Route

Data: NTD 2023

Operating Cost per Passenger

CCTA's operating cost per passenger is below the average for the six peers included in this research ($7.80 compared with an average of $9.87).

Figure 5. Operating Cost per Passenger--Fixed Route

Data: NTD 2023

## Paratransit and Microtransit (Demand Response)

Four Nines uses National Transit Database data to compare the peer performance metrics. NTD currently collects data for all demand response services and publishes them as a combined dataset. We are therefore unable to separate paratransit and microtransit data from each other. Four Nines contacted the peer agencies that operate both paratransit and microtransit services to request the data separately but have not received any data.

FTA requirements limit paratransit fares to two times the adult single fare for fixed route services, whereas there is no such requirement for microtransit fares. Generally, public transit agencies that operate microtransit have two goals for the microtransit services. They are designed to either supplement the fixed route service and act as a feeder service, therefore fares are normally set similar to the fixed route service, or the microtransit service is considered a premium service with the fares set at a premium rate. The charts below should be viewed considering this information.

CCTA's performance metrics for demand response services are similar to the average for the six peers included in this research. Fare revenue is higher than the average for the other agencies.

Fare Revenue per Boarding

CCTA's fare revenue per boarding is one of the highest among the six peers ($3.79 compared with an average of $2.74), with only the City of Appleton having a higher fare revenue per boarding.

Figure 6. Fare Revenue per Boarding--Demand Response
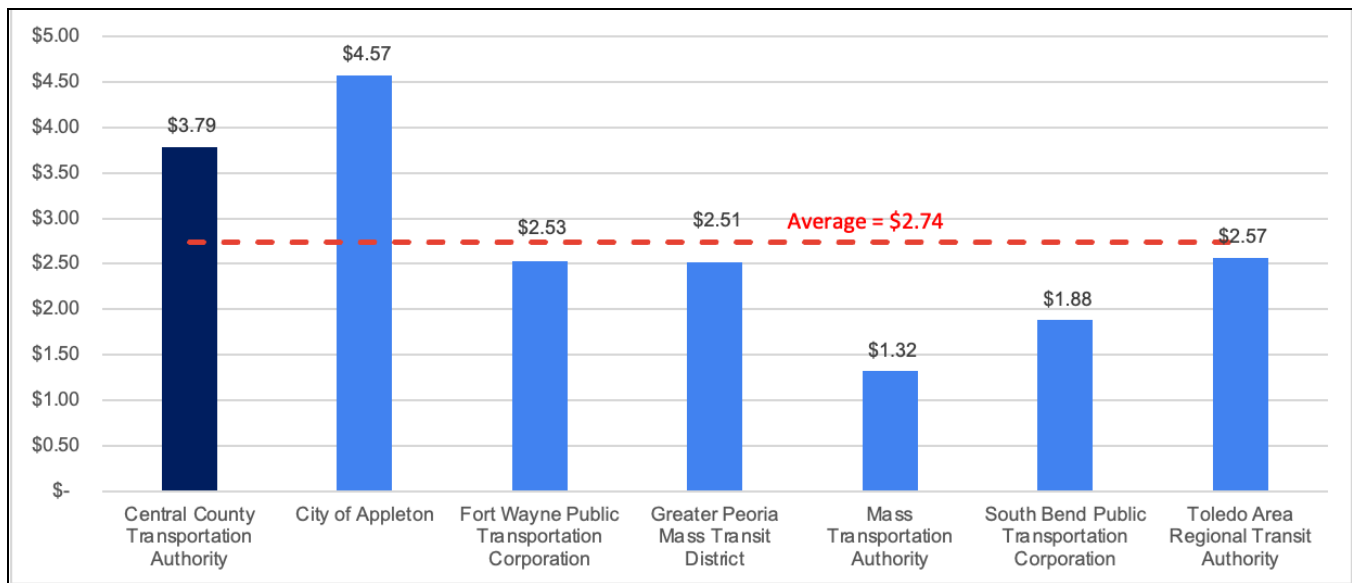
Data: NTD 2023

Subsidy per Boarding

The subsidy is determined by subtracting the total fare revenue from the total operating cost for paratransit service. This is divided by the number of paratransit boardings to derive the subsidy per boarding. The higher the subsidy per boarding, the larger the alternative funding sources required to maintain service. Due to the higher operating costs of paratransit and the Federal Transit Administration (FTA) mandated cap for fares of twice the level of the adult fare, we expect the subsidy per passenger for paratransit services to be higher than that for fixed route services.

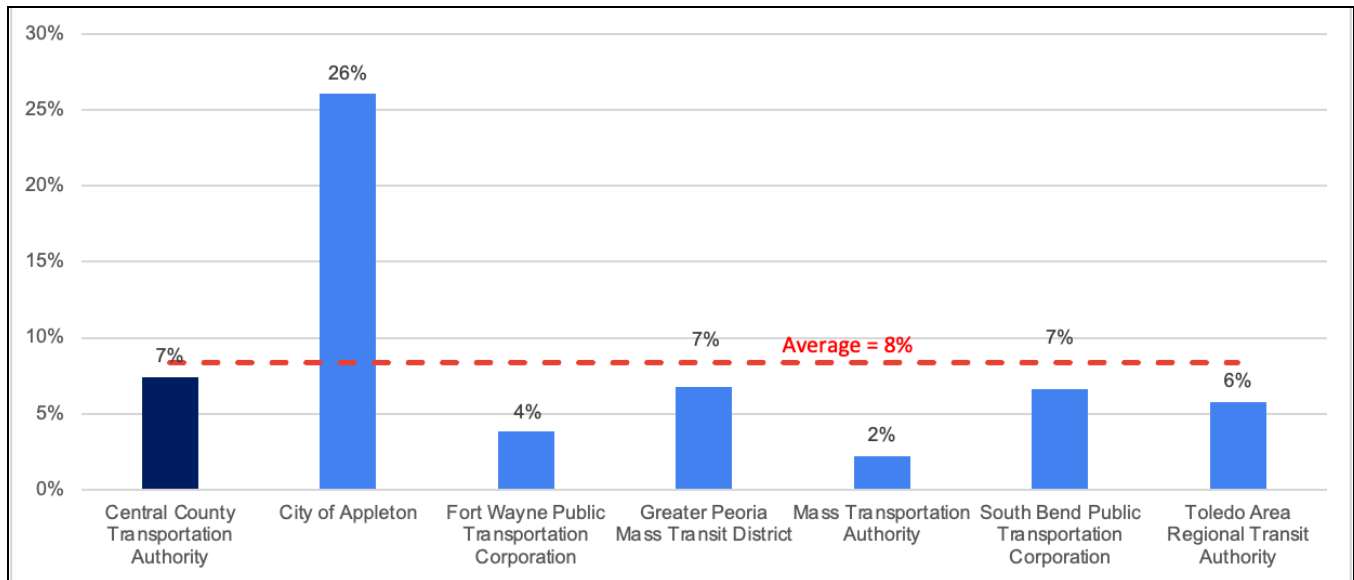CCTA's subsidy per boarding is similar to the average for the six peers ($47.27 compared to $40.88).

Figure 7. Subsidy per Boarding--Demand Response
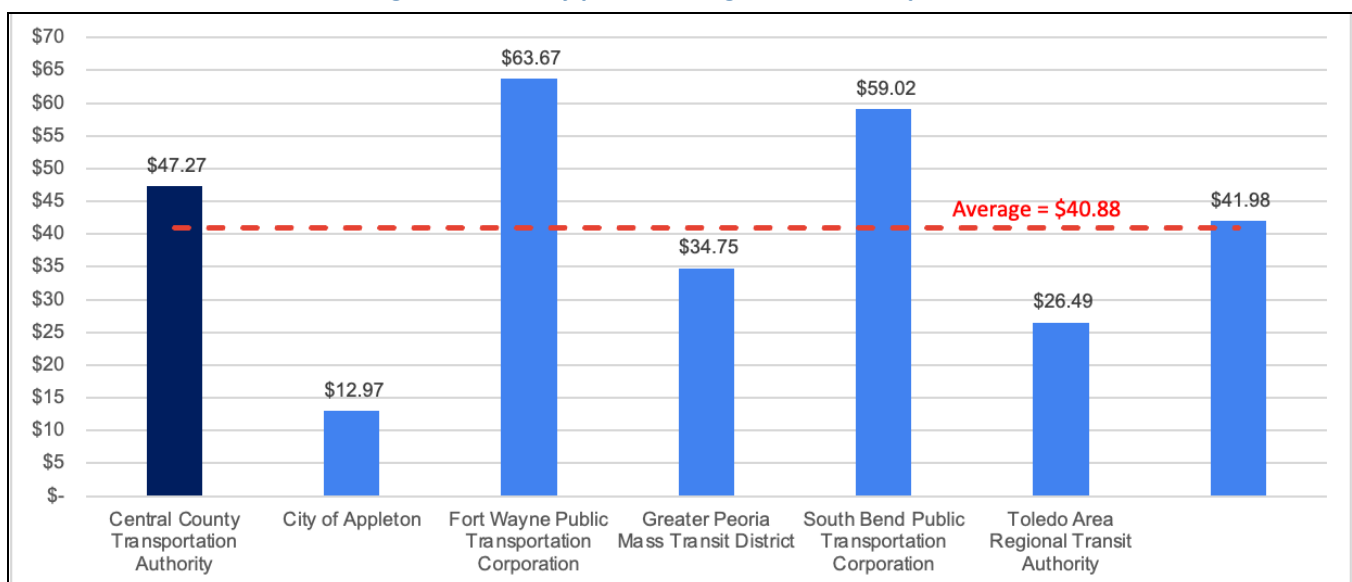
Data: NTD 2023

Farebox Recovery

CCTA's farebox recovery is similar to the majority of the six peers (7% compared to an average of 8%). The City of Appleton is an outlier for this metric.
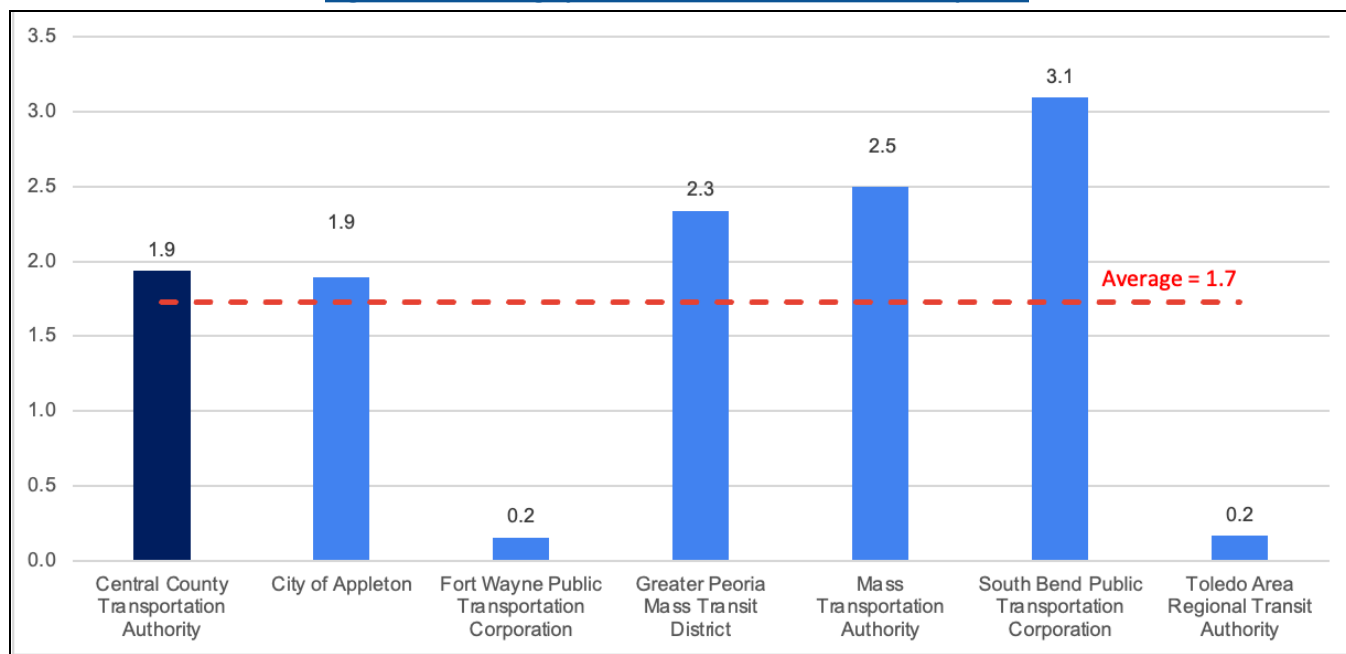
Figure 8. Farebox Recovery--Demand Response
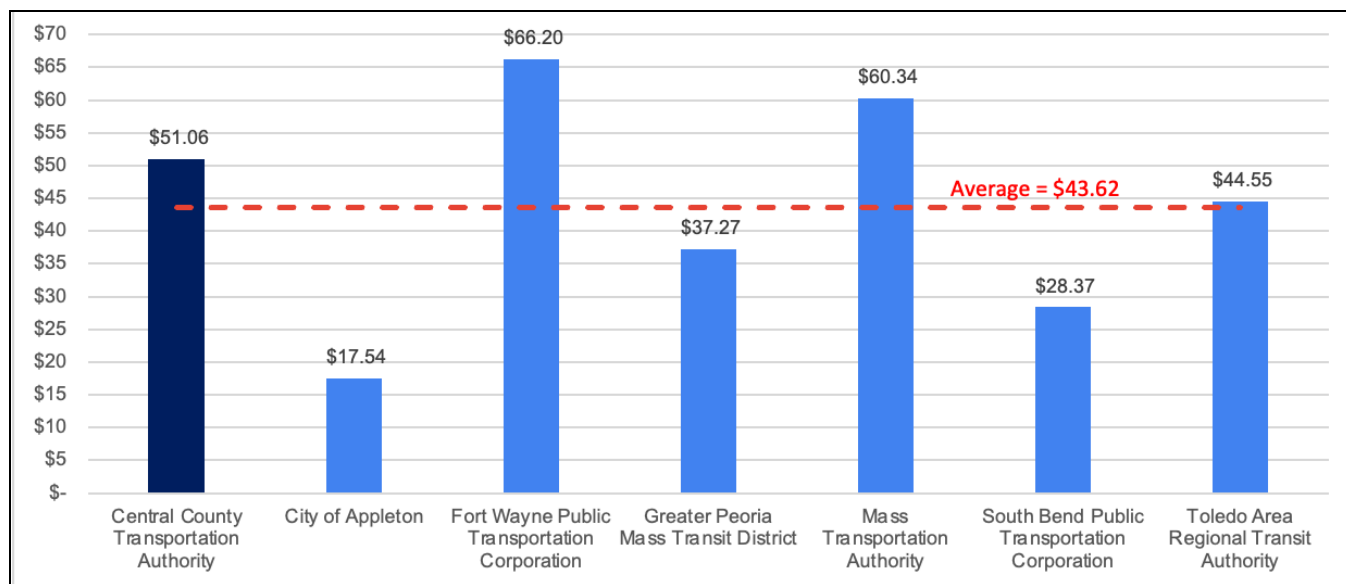

Data: NTD 2023

Boardings per Revenue Hour

There is a large variation in the number of boardings per revenue hour amongst the six peers. CCTA's boardings per revenue hour are similar to the average for the peers (1.9 compared to 1.7).

Figure 9. Boardings per Revenue Hour--Demand Response

Data: NTD 2023

Operating Cost per Passenger

CCTA's operating cost per passenger is just above the average for the six peers ($51.06 compared to an average of $43.62).

Figure 10. Operating Costs per Passenger--Demand Response

Data: NTD 2023

Fixed Route Fare Policy Peer Review

All the peer agencies considered in this research have flat fares, with some discounts by rider type and one has

different fare levels by service type.

It should be noted that Fort Wayne Public Transportation Corporation will be implementing a new fare structure on April 1, 2025.[1] The goals of the new fare structure are:
- Reduce costs of fare collection through price incentives for mobile tickets
- Offer flexible payment options to customers
- Improve equity through fare capping
- Preserve the value of existing fares already in circulation
- Improve dwell time at the bus stop
- Continue offering reduced fares for those who qualify
- Preserve scheduling capacity for ADA-required Access trips

There will be a small discount for purchasing tickets through their mobile app (Token Transit) ($1.46 instead of $1.50).

Comparison of Adult Single Ride Fares

Adult single ride fares for the six peers vary from $1.00 to $2.00. CCTA's Single Ride fare is in the middle of this range.

Table 2. Adult Single-Ride Fares

Agency	Location	Adult Single Ride Fare	Date of previous fare increase
Central County Transportation Authority	Kalamazoo, MI	$1.50	2009
City of Appleton	Appleton, WI	$2.00	2015
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	$1.25 (new fare $1.50)	2025
Greater Peoria Mass Transit District	Peoria, IL	$1.00	2000
Mass Transportation Authority	Flint, MI	$1.75	2016
South Bend Public Transportation Corporation	South Bend, IN	$1.00	2010
Toledo Area Regional Transit Authority	Toledo, OH	$1.50	2019
Peer Average		**$1.43**	

Fare Products

CCTA offers a number of different time-period fare passes. CCTA's peers generally offer a single fare, day pass and monthly pass. CCTA does not offer a day pass but does offer a 9-Day Pass which no peer agencies do.

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[1] https://fwcitilink.com/wp-content/uploads/2024/07/2025-Fare-Proposal-Draft.pdf

CCTA also offers multi-ride passes for 14 rides and 250 rides. The City of Appleton offers 10 ride passes and Fort Wayne Public Transportation Corporation offers a 10 ride pass for reduced fare users only. None of the other peer agencies offer multi-ride passes.

Table 3. Fare Products

Agency	Location	Single	Day	7 Day Pass	9 Day Pass	14 Day Pass	30/31 Day Pass	10 Rides	14 Rides	250 Rides
Central County Transportation Authority	Kalamazoo, MI	Yes			Yes		Yes		Yes	Yes
City of Appleton	Appleton, WI	Yes	Yes				Yes	Yes		
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	Yes	Yes				Yes	Reduced only		
Greater Peoria Mass Transit District	Peoria, IL	Yes	Yes				Yes			
Mass Transportation Authority	Flint, MI		Yes				Yes			
South Bend Public Transportation Corporation	South Bend, IN	Yes	Yes			Yes	Yes			
Toledo Area Regional Transit Authority	Toledo, OH	Yes	Yes	Yes			Yes			

The multiple is the number of trips that a rider has to make to break even and benefit from the cost savings of a given pass (Note: in the following tables, "x" indicates the number is a multiplier).

It is only possible to compare the CCTA's monthly (30/31 day) pass multiple with its peers as CCTA's peers do not offer most of the pass types CCTA does. For monthly passes, multiples range from 30 times the single fare to 40 times the single fare. CCTA and Greater Peoria Mass Transit District offer the highest price multiple for monthly passes.

Table 4. Pass Pricing Multipliers

Agency	Location	Day	7 Day Pass	9 Day Pass	14 Day Pass	30/31 Day Pass	10 Rides	14 Rides	250 Rides
Central County Transportation Authority	Kalamazoo, MI			13.3x		40.0x		13.3x	233.3x
City of Appleton	Appleton, WI	2.0x				30.0x	8.5x		
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	2.4x				36.0x	N/A		
Greater Peoria Mass Transit District	Peoria, IL	3.0x				40.0x			
Mass Transportation Authority	Flint, MI					31.4x			
South Bend Public	South Bend, IN	3.0x			18.0x	35.0x			

Agency	Location	Day	7 Day Pass	9 Day Pass	14 Day Pass	30/31 Day Pass	10 Rides	14 Rides	250 Rides
Transportation Corporation									
Toledo Area Regional Transit Authority	Toledo, OH	2.0x	10.0x			30.0x			

Transfers

Three of the peer agencies offer free transfers: City of Appleton, Fort Wayne Public Transportation Corporation and Toledo Area Regional Transit Authority.

The other three peers do not offer free transfers. Mass Transp ortation Authority (Flint) discontinued $0.10 transfers in January 2025.

Table 5. Transfers

Agency	Location	Transfers
Central County Transportation Authority	Kalamazoo, MI	Free transfer valid for 60 minutes
City of Appleton	Appleton, WI	Free transfer to second bus, expires 75 or 105 minutes after issuance, depending on route
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	Free transfer to second bus
Greater Peoria Mass Transit District	Peoria, IL	No transfers
Mass Transportation Authority	Flint, MI	No transfers
South Bend Public Transportation Corporation	South Bend, IN	No transfers
Toledo Area Regional Transit Authority	Toledo, OH	Free transfers within 2 hours

Discount Fare Programs

This section compares the discount fare programs offered by the peer agencies.

The majority of peer agencies offer free fares to small children (i.e. under 5 years old). Four agencies have a 50% discount for older children (defined as under 18/19 years old or K-12 students). South Bend Public Transportation Corporation offers a discounted monthly pass to K-12 students.

Table 6. Discount Fare Programs for Youth

Agency	Location	Youth		Student	
		Discount	**Eligibility**	**Discount**	**Eligibility**
Central County Transportation Authority	Kalamazoo, MI	Free	Under 23 months		
		50%	Under 48 inches		
City of Appleton	Appleton, WI	Free	Under 5		
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	Free	Under 5		
		50%	Under 18		

Agency	Location	Youth		Student	
		Discount	Eligibility	Discount	Eligibility
Greater Peoria Mass Transit District	Peoria, IL	Free	Under 54 inches	50%	Valid school or college ID
Mass Transportation Authority	Flint, MI	Free	Under 42 inches	50%	K to 12
South Bend Public Transportation Corporation	South Bend, IN	Free	Under 5	Discounted monthly pass	K to 12
Toledo Area Regional Transit Authority	Toledo, OH	50% Free during summer break	6 to 19 year olds		

Public transportation law requires public transportation agencies that receive FTA funding under the Section 5307 Urbanized Area Formula Program to charge no more than half fare to people with disabilities and seniors during off-peak hours for fixed route services. The majority of public transit agencies do not have different fares for off-peak and peak hours; none of the peers differentiated between off-peak and peak in their fare structure.

None of the peer agencies offer greater than 50% discount on fare products for seniors. Some agencies extend the discount to other fare products. There is some variation in the age eligibility used by different agencies with the highest being 65 (FTA requirement) and the lowest being 60 years old.

Table 7. Discount Fare Programs for Seniors

Agency	Location	Seniors	
		Discount	Eligibility
Central County Transportation Authority	Kalamazoo, MI	50% on single ride only	Over 62
City of Appleton	Appleton, WI	50% on single ride and lower discounts on other fare products	Over 65
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	50%	Over 60
Greater Peoria Mass Transit District	Peoria, IL	50% on single ride only	Over 65
Mass Transportation Authority	Flint, MI	50%	Over 65
South Bend Public Transportation Corporation	South Bend, IN	50% on single ride only	Over 65
Toledo Area Regional Transit Authority	Toledo, OH	50%	Over 65

Similarly, no peer agencies offer a higher than the FTA required 50% discount for people with disabilities, though some agencies offer a discount on other fare products.

Table 8. Discount Fare Programs for People with Disabilities

Agency	Location	People with Disabilities and Medicare
		Discount
Central County Transportation Authority	Kalamazoo, MI	50% on single ride only
City of Appleton	Appleton, WI	50% on single ride and lower discounts on other fare products
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	50%
Greater Peoria Mass Transit District	Peoria, IL	50% on single ride only
Mass Transportation Authority	Flint, MI	50%
South Bend Public Transportation Corporation	South Bend, IN	50% on single ride only
Toledo Area Regional Transit Authority	Toledo, OH	50%

Three agencies offer discounts for veterans and active military.

Table 9. Discount Fare Programs for Veterans and Active Military

Agency	Location	Veterans and Active Military	
		Discount	Eligibility
City of Appleton	Appleton, WI	Free	Disabled Veterans
Greater Peoria Mass Transit District	Peoria, IL	50% on single ride	Veteran
Toledo Area Regional Transit Authority	Toledo, OH	50%	Veterans and Active Military

Institutional Fare Programs

Our research identified two peers that offer institutional fare programs, generally for colleges.

Table 10. Institutional Fare Programs

Agency	Location	Fare Programs
City of Appleton	Appleton, WI	Fox Valley Technical College - free rides for students, funded by FVTC
		Appleton Area School District - free rides for middle and high school students Monday to Saturday, funded by AASD
		Lawrence University - Pilot scheme providing free rides for students, funded by Lawrence University
South Bend Public Transportation Corporation	South Bend, IN	Partnership with a number of universities, colleges, and high schools in the area to provide free travel for staff, students, and faculty. Riders use educational ID to access free travel.

Paratransit and Microtransit (Demand Response) Services

The peer agencies offer a variety of different demand response services – from paratransit services for ADA eligible riders within ¾ mile of the fixed route service to on-demand services available to all riders with no restrictions.

CCTA and the City of Appleton offer a variety of demand response services for different rider categories and locations. Two peers offer FTA required paratransit service within ¾ mile of their fixed route service and a microtransit service with no restrictions on rider types.

Table 11. Demand Response Services

Agency	Location	Paratransit within ¾ mile	Paratransit outside ¾ mile	Seniors	General Riders
Central County Transportation Authority	Kalamazoo, MI	Yes	Yes	Yes	Yes
City of Appleton	Appleton, WI	Yes	Yes	Yes	Yes
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	Yes			Yes[1]
Greater Peoria Mass Transit District[2]	Peoria, IL	Yes			
Mass Transportation Authority	Flint, MI	Yes[3]			
South Bend Public Transportation Corporation	South Bend, IN	Yes			
Toledo Area Regional Transit Authority	Toledo, OH	Yes			Yes

Notes:
1) Fixed route deviation for two specific routes
2) Also offer a rural connectivity service not included in the analysis as study focus is on urban microtransit
3) General riders can use service as a legacy demand response/Dial a Ride service, booking 7 days in advance

Paratransit Services Fare Policy Review

Public transit agencies that provide fixed route services must also provide ADA complementary paratransit services for people whose disabilities prevent them from using the fixed route system. Paratransit fares are federally capped at two times the single-ride, full-fare equivalent for fixed route transit services.

This section focuses on these services.

Single Ride Fare Compared to Adult Fixed Route Fare

Five of the six peer agencies' paratransit fares are two times the adult fixed route fare, as on CCTA. Only the Mass Transportation Authority has a fare below the two times adult single fare limit.

Paratransit single fares range from $2.00 to $4.00 with CCTA's fare in the middle ($3.00).

Table 12. Paratransit Fare vs. Full Fare

Agency	Location	Full Fare (Fixed Route)	Paratransit Fare	Difference
Central County Transportation Authority	Kalamazoo, MI	$1.50	$3.00	2x
City of Appleton	Appleton, WI	$2.00	$4.00	2x
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	$1.25	$2.50	2x
Greater Peoria Mass Transit District	Peoria, IL	$1.00	$2.00	2x
Mass Transportation Authority	Flint, MI	$1.75	$2.25	1.3x
South Bend Public Transportation Corporation	South Bend, IN	$1.00	$2.00	2x
Toledo Area Regional Transit Authority	Toledo, OH	$1.50	$3.00	2x

None of the agencies offer discounts for different rider categories (e.g. seniors or people with low incomes) for paratransit services. Toledo Area Regional Transit Authority allows paratransit eligible riders to ride for free on fixed route services.

The City of Appleton has a Sunday paratransit service fare of $10.00. City of Appleton fixed route services operate Monday to Saturday. There is no fixed route service on Sundays, so the FTA fare cap does not apply for paratransit service on Sundays.

South Bend Public Transportation Corporation and Toledo Area Regional Transit Authority offer multi-ride passes, but they do not provide a discount for riders. These passes offer convenience for riders who only want to make a purchase once.

Fare Products

Almost all of the peer agencies only offer single ride fares for their paratransit services. Mass Transportation Authority is the exception. Mass Transportation offers a monthly pass for paratransit eligible riders on Your Ride. The monthly pass enables up to 60 rides on their paratransit services for $40.00, 18 times a single ride fare.

Microtransit Services Fare Policy Review

Single Ride Fare Compared to Adult Fixed Route Fare

There is some variation in the difference between microtransit and fixed route single fares. CCTA and City of Appleton have the same fare for both services. Fort Wayne Public Transportation Corporation has a slightly higher fare (1.2x the fixed route single fare).

Table 13. Microtransit Fare vs. Full Fare

Agency	Location	Full Fare (Fixed Route)	Microtransit Fare	Difference
Central County Transportation Authority	Kalamazoo, MI	$1.50	$1.50	1x
City of Appleton	Appleton, WI	$2.00	$2.00	1x
Fort Wayne Public Transportation Corporation	Fort Wayne, IN	$1.25	$1.50	1.2x
Toledo Area Regional Transit Authority	Toledo, OH	$1.50	$3.00	2x

Fare Products

Two of the peer agencies included in this research only offer a single fare for their microtransit service (City of Appleton and Toledo Area Regional Transit Authority). Fort Wayne Public Transportation Corporation offers single, day, and 31 day passes.

Transfers to/from Fixed Route

City of Appleton and Fort Wayne Public Transportation Corporation do not offer transfers to or from their fixed route services. Toledo Area Regional Transit Authority allows microtransit (TARTA Flex) riders to transfer to fixed route services free of charge.

Discounts for Different Rider Groups

Fort Wayne Public Transportation Corporation and CCTA offer discounts for different rider groups on their microtransit services with both offering 50% discounts for youth, seniors, and people with disabilities. The City of Appleton and Toledo Area Regional Transit Authority do not have discounts for different rider groups.

Institutional Fare Programs

City of Appleton's institutional fare programs do not include microtransit. The other peer transit agencies with microtransit services do not have institutional fare programs.

Fare Collection and Fare Media

Fixed Route

CCTA's peers offer a variety of fare collection solutions on fixed route services, including:

- Mobile tickets, electronically validated
- Account-based smart cards, electronically validated
- Open payments, electronically validated

Two of CCTA's peers don't offer any type of electronic fare collection solution. The four peers with electronic fare collection solutions electronically validate fare media for these systems, including mobile apps. The peers that offer smart cards offer newer, account-based smartcards that provide significant customer benefits, including real-time availability of loaded funds and passes.

Table 14. Fixed Route Fare Collection

City & Agency	Cash On Board	Paper / Magstripe Tickets	Electronic Solutions	Other
Kalamazoo, MI Central County Transportation Authority	Single Ride	9-Day 31-Day	Token Transit Mobile App (Visually Validated) GFI Card-Based Smartcard (Electronically Validated)	Tokens
Appleton, WI City of Appleton	Single Ride Day Pass	Day Pass 10 Ride 30 Day	-	-
Fort Wayne, IN Fort Wayne Public Transportation Corporation	Single Ride Day Pass	Day Pass 10 Ride[2] 31 Day	Token Transit Mobile App (Electronically Validated)	-
Peoria, IL Greater Peoria Mass Transit District	Single Ride Day Pass	Day Pass 30 Day	-	-
Flint, MI Mass Transportation Authority	Single Ride	-[3]	GFI Mobile App, Smartcard, and Open Loop (Electronically Validated)	-
South Bend, IN South Bend Public Transportation Corporation	Single Ride Day Pass	Day Pass 2 Week 31 Day	Token Transit Mobile App (Electronically Validated)	-

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[2] Available for Reduced Fare customers only
[3] Discontinued paper and punch passes January 2025

City & Agency	Cash On Board	Paper / Magstripe Tickets	Electronic Solutions	Other
Toledo, OH Toledo Area Regional Transit Authority	Single Ride Day Pass	Day Pass 7 Day 31 Day	EZfare Mobile App, Smartcard, and Transit App (Electronically Validated)	-

All of the peers also have GFI fareboxes. Two of the peers also use Token Transit - one has a separate validator for electronically validating Token Transit tickets and one has integrated Token Transit and GFI so Token Transit users can electronically validate their Token Transit ticket at the farebox. Mass Transportation Authority (Flint, MI) launched a full account-based fare collection solution from GFI which includes a mobile app, smartcards, and direct payment via credit/debit cards on board (open payments).

Toledo Area Regional Transit Authority (TARTA) in Toledo, OH participates in the EZfare fare collection solution, procured and made available by NEORide. NEORide is a membership-based Council of Governments, originally formed by three Ohio transit agencies. In its ten plus year history, NEORide has grown to a multi-state alliance of more than 30 dues-paying public transit systems, including Ann Arbor, Michigan member TheRide. Membership is available to any transit agency or political subdivision. Amongst other membership benefits, members have access to NEORide's joint procurements which include account-based ticketing from Masabi, ticket vending machines from Flowbird, and trip planning from Transit, as well as software and paratransit services, route planning software, digital signage, and more.

Table 15. Fixed Route Fare Collection Vendor and Technology Peer Comparison

City & Agency	Fareboxes	Electronic Solutions	Electronic Validation Solution
Kalamazoo, MI Central County Transportation Authority	GFI	Token Transit	Fareboxes for smartcards
Appleton, WI City of Appleton	GFI	-	-
Fort Wayne, IN Fort Wayne Public Transportation Corporation	GFI	Token Transit	Separate validator for mobile app
Peoria, IL Greater Peoria Mass Transit District	GFI	-	-
Flint, MI Mass Transportation Authority	GFI	GFI	Fareboxes for mobile app, smartcards, open payments
South Bend, IN South Bend Public Transportation Corporation	GFI	Token Transit	Fareboxes for mobile app
Toledo, OH Toledo Area Regional Transit Authority	GFI	Masabi (EZfare)	Separate validator for mobile apps and smartcard

Paratransit

Most transit agencies do not offer identical fare collection solutions on paratransit and fixed route services. Smaller vehicle sizes and fewer customers at one time generally mean paratransit vehicles either are not outfitted with fareboxes or fareboxes are smaller and not electronic. Paratransit vehicles also tend not to be outfitted with the validators necessary to electronically validate mobile tickets or smartcards.

Like CCTA, all of its peers accept exact change on board as well as pre-purchased paper tickets for paratransit services. South Bend, IN and Toledo, OH both accept mobile tickets for visual validation on their paratransit services; the mobile apps are the same on fixed route. Only the City of Appleton also accepts checks on board.

Table 16. Paratransit Fare Collection

City & Agency	Cash On Board	Paper Tickets	Electronic Solutions	Other
Kalamazoo, MI Central County Transportation Authority	X	X	X	Check
Appleton, WI City of Appleton	X[4]	X	-	Check
Fort Wayne, IN Fort Wayne Public Transportation Corporation	X	X	-	-
Peoria, IL Greater Peoria Mass Transit District	X	X	-	-
Flint, MI Mass Transportation Authority	X	X	-	-
South Bend, IN South Bend Public Transportation Corporation	X	X	X	-
Toledo, OH Toledo Area Regional Transit Authority	X	X	X	-

Microtransit

Integrated fare collection between microtransit and fixed route is an issue many transit agencies are facing, even beyond CCTA's peers. The City of Appleton does not have an electronic solution for fares on fixed route or microtransit. TARTAFlex in Toledo accepts cash on board, transfers from fixed route, and payment via the Masabi-provided EZfare app, which is also accepted on fixed route. EZfare on microtransit, unlike fixed route, is visually validated; as a result, EZfare smartcards are not accepted on microtransit as microtransit operators have no way to validate this fare media.

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[4] On Sundays, City of Appleton accepts cash payments only; tickets and checks are not accepted

Table 17. Microtransit Fare Collection

City & Agency	Cash On Board	Paper / Magstripe Tickets	Electronic Solutions
Kalamazoo, MI Central County Transportation Authority	Not Accepted	-	Token Transit Mobile App (Visually Validated) Pre-payment through Via app
Appleton, WI City of Appleton	X	X	-
Toledo, OH Toledo Area Regional Transit Authority	X	-	Masabi (EZfare) Mobile App (Visually Validated)

Fare Capping

Three of CCTA's peers offer fare capping, providing customers using eligible fare media the ability to pay towards the cost of a pass and always receive the best fare.

Table 18. Fare Capping

City & Agency	Description	Eligible Fare Media	Fare Caps Available
Fort Wayne, IN Fort Wayne Public Transportation Corporation	Offers "pay as you go" or fare capping via the Token Transit mobile app	Mobile app	Day, month
Flint, MI Mass Transportation Authority	Offers fare capping via GFI mobile app and smartcard. Open payments are not eligible for fare capping	Mobile app Smart card	Day, 7 day, 30 day
Toledo, OH Toledo Area Regional Transit Authority	Offers fare capping via EZfare mobile app and smartcard and Transit mobile app	Mobile app Smart card	Day, 7 day, 31 day

Regular Fare Adjustment Policies

CCTA requested that this peer review include developing an understanding of regular fare adjustment policies amongst CCTA's peers. We have not been able to find regular fare adjustment policies amongst the six peers included in this research. However, we are aware of a number of other public transit agencies that have policies to ensure that fares are regularly reviewed and adjusted as necessary.

Regular fare adjustment policies are used by agencies to ensure that fare revenue increases in line with operating costs and inflation to ensure there is not a resulting budget gap. Many public transit agencies do not have regular fare adjustments and may not increase fares for a substantial period. As the fare remains the same for several years, the fares no longer cover the same proportion of operating costs. The Chicago Metropolitan Agency for Planning recommended that the state should require the region's transit providers to consider regularly recalculating base fares and passes based on the rate of inflation. This would be the default basis for projected future fare increase and would be incorporated into annual agency budgeting processes.[5]

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[5] https://cmap.illinois.gov/wp-content/uploads/PART_recommendations-b2-fare-levels.pdf

We have found two types of fare adjustment policies:

- Policies that propose a fare revision every two years based on changes to the consumer price index and operating costs
- Policies that establish fare increases for a five year period

Regular Adjustments

Jacksonville Transportation Authority, Florida has a Board approved policy for an Automatic Fare Indexing Policy. It states that JTA will adjust fares every two years, unless the Board chooses not to. The policy includes an automatic inflator which takes into account changes in the consumer price index, and changes in the operating budget to determine the percentage increase in fares. The policy limits a single fare increase to no more than 10%.

Maryland Department of Transportation, Maryland instituted a fare adjustment policy in 2013. The policy states that when the consumer price index increases over the prior two years, MDOT MTS is required to increase transit fares by a minimum of 10 cents or higher.[6]

San Francisco MTA, California has a Board approved policy for an Automatic Fare Indexing Policy, approved in 2009. It states that SFMTA will adjust the fares every two years, subject to Board approval. The policy includes an automatic inflator which takes into account the Bay Area consumer price index from the California Department of Finance and operating budget to determine the percentage increase in fares. The policy limits a single fare increase to no more than 10%.[7]

MTA New York City Transit, New York undertakes a biennial review of its fare policy to allow them to maintain current service levels and even increase service frequency. The MTA's Financial Plan assumes fare/toll increases every other year that yield a 4% increase in revenue, the equivalent of 2% per year.[8]

LA Metro, California approved a policy in 2022 to recalculate the base fare every 4 years based on the consumer price index.

Established Increases for a Period

Golden Gate Bridge Highway and Transportation District, California approved a five year transit fare program in March 2023. This transit fare program sets schedule fare increases during the life of the program.[9] The current plan increases bus, ferry, and paratransit fares annually, to support rising operating expenses.

San Francisco Bay Area Water Emergency Transportation Authority, California has a five year fare program which took effect in July 2023. The program locks in fares cuts that were established in its Pandemic Recovery Program for the next five years and establishes small 3% annual increases on fares for regular service.[10] The annual increases are based on historical inflation data and intended to keep paces with peer transit operators.

Best Practices and Gap Analysis

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[6] https://www.mta.maryland.gov/articles/243
[7] https://www.sfmta.com/getting-around/muni/fares/automatic-fare-indexing-policy
[8] https://www.mta.info/press-release/mta-announces-virtual-public-hearings-on-fare-and-toll-policy-to-being-dec-1
[9] https://www.goldengate.org/assets/1/6/2023-0126-financecomm-no6-authsettingphfareprogr.pdf?9856
[10] https://sanfranciscobayferry.com/san-francisco-bay-ferry-proposes-locking-in-lower-fares/

This section highlights the best practices and gap analysis from the peer review.

Fixed Route

- CCTA's peers have adult single fares between $1.00 and $2.00
- CCTA's peers generally offer single ride fares, day passes, and monthly passes
- CCTA does not offer a day pass, which all its peers do, and offers a 9-day Pass which is unique amongst its peers
- Most peers do not offer multi-ride passes and no other agency offers a bulk option (250 tokens)
- CCTA's pass multiples are the highest amongst its peers. CCTA riders take longer to reach the breakeven point for passes
- Peers generally offer free fares for children under 5 years old, while CCTA limits free fares for children to those under 2 years old
- As CCTA does, peers meet the FTA requirement of a 50% discount for adult single fares for seniors and people with disabilities. There is some variation in the age definition of seniors from 60 to 65 years old, with CCTA in the middle with 62 years old

Paratransit

- Peers generally have a simpler distinction between paratransit and microtransit services
- A majority of peers offer paratransit fares at the FTA requirement of two times the adult single ride fixed route fare

Microtransit

- Due to the nature of demand response, defined as paratransit and microtransit services, operations are designed to fit the demand and geography of local areas so there is significant variation between peer agencies
- Peers generally have a very simple fare structure with only a single fare offered
- Fort Wayne Public Transportation Corporation and CCTA offer discounts for different rider groups on their microtransit services with both offering 50% discounts for youth, seniors, and people with disabilities.
- Toledo Area Regional Transit Authority and CCTA allows microtransit (TARTAFlex) riders to transfer to fixed route services free of charge

Fare Media

- No other peer agencies offer physical tokens as a fare media
- Those peers offering smartcards have upgraded to newer account-based smartcards
- Those peers offering mobile ticketing electronically validate mobile tickets on fixed route

Appendix C: Rider Survey Summary

Central County Transportation Authority Fare Study

Task D: Rider Survey Report

Prepared For:	Central County Transportation Authority Fare Study
Prepared By:	Four Nines Technologies
Date:	June 23, 2025

Introduction

This memo summarizes the findings of the Rider Fare Survey for the Fare Study.

Survey Purpose

The aim of the Rider Fare Survey was to understand how riders use the current fare structure and riders' views on a number of potential fare structure changes being considered as part of this Fare Study.

As the potential fare changes are largely for Metro Bus fares, the survey was aimed at Metro Bus riders and focused on bus fares. There were no specific questions about Metro Link or Metro Connect fares.

Methodology

The survey was designed to be completed online with question logic routing to enable us to ask follow-up questions to riders based on their answers to previous questions. This enables us to ask more in-depth questions to riders specifically related to their current fare usage.

CCTA staff developed a paper version of the online survey. Posters on buses informed riders that they could collect copies of the survey from the Customer Service Center and return the completed surveys there. Only two paper surveys were collected using this method, but they were rejected in the cleaning process.

The online survey was administered using HubSpot.

The survey was live from Friday May 16th until Monday June 9th. 233 complete responses were received in this time.

Marketing and Dissemination

CCTA promoted the survey through their website, Facebook, X, a popup on the Token Transit app, public messages on MyStop, and QR codes linking to the survey on posters and handouts. Examples of these marketing materials are included in Appendix A.

Summary of Key Findings

- Fare affordability is important
  - 44% of respondents state that they are from a household with low incomes (at or below 200% Federal Poverty Level)
  - 47% of respondents are eligible for a discounted fare
  - 30% of respondents state that they have a disability which impacts their travel, similar to the proportion of riders who report that they are eligible for a discounted fare due to disability
- A vast majority of riders have access to technology which would enable them to use electronic payment methods
- The Token Transit app is the most commonly used method of paying for fares, with paying with cash on board the next most used method
- Many riders use transfers to complete their journey, so any policy which removed transfers would need to be considered carefully. Other fare technology methods could be used to reduce the need for paper transfers issued onboard vehicles
  - 77% of Single Ride users normally transfer between buses on their journeys
  - 55% of Metro Bus riders agree/strongly agree that "free transfers for 60 minutes with the Single Ride fare enables me to complete my journey without needing to pay an additional fare"
- Although a high proportion of riders use the Metro Bus service very frequently (39% travel five or more times per week), the most commonly purchased fare is a Single Ride fare (69%). Suggesting that currently available period passes do not meet the needs of riders
  - 69% of riders most commonly purchase a Single Ride fare. The most common reason for this is that "I prefer to pay with cash on board" (30%). A significant proportion state that they do not travel frequently enough to justify purchasing a period pass and that the period passes are too expensive
  - Single Ride users are less likely to agree that Monthly Passes are affordable. 76% of Monthly Pass users agree that passes are affordable compared to 40% of Single Ride users
- A high proportion of fares are paid with cash onboard, with riders stating that they prefer to use cash (25%).
  - A significant proportion of riders stated that the reason they use cash is because "I am not a frequent rider" and "Cash is the most convenient"
- 11% of respondents stated that they usually pay with Tokens. The most common response to

why they use Tokens was "It is easy and convenient for me to purchase Tokens" (42%)

- ○ 29% stated that "I use my Bridge Card to purchase discount tokens". Tokens are the only fare media which allows riders to receive a discount with a Bridge Card
- Generally, riders agreed with the statement that the available discounts enable eligible riders to use CCTA services. Though, the responses suggest that simplifying youth fares would be beneficial
- There is strong support for the introduction of a Day Pass, especially amongst riders that currently purchase Single Ride fares
- There is strong support for the introduction of discounted Day and Monthly Passes. As riders who are eligible for a discount are frequent riders, with 35% traveling 5 or more times per week on Metro Bus services. Discounted period passes would be a significant benefit to them, and may reduce Single Ride purchases
- The most common response when asked how they would like to pay for their fares in the future was with a Mobile Ticket on a phone (36%), then cash on board (19%). A significant proportion would prefer to pay with Renewable Value Card or credit/debit cards onboard. The least popular payment methods were Paper Passes and Tokens.

Respondent Demographics

Age distribution

The majority of respondents were aged between 25 and 61 years old (67% of respondents).
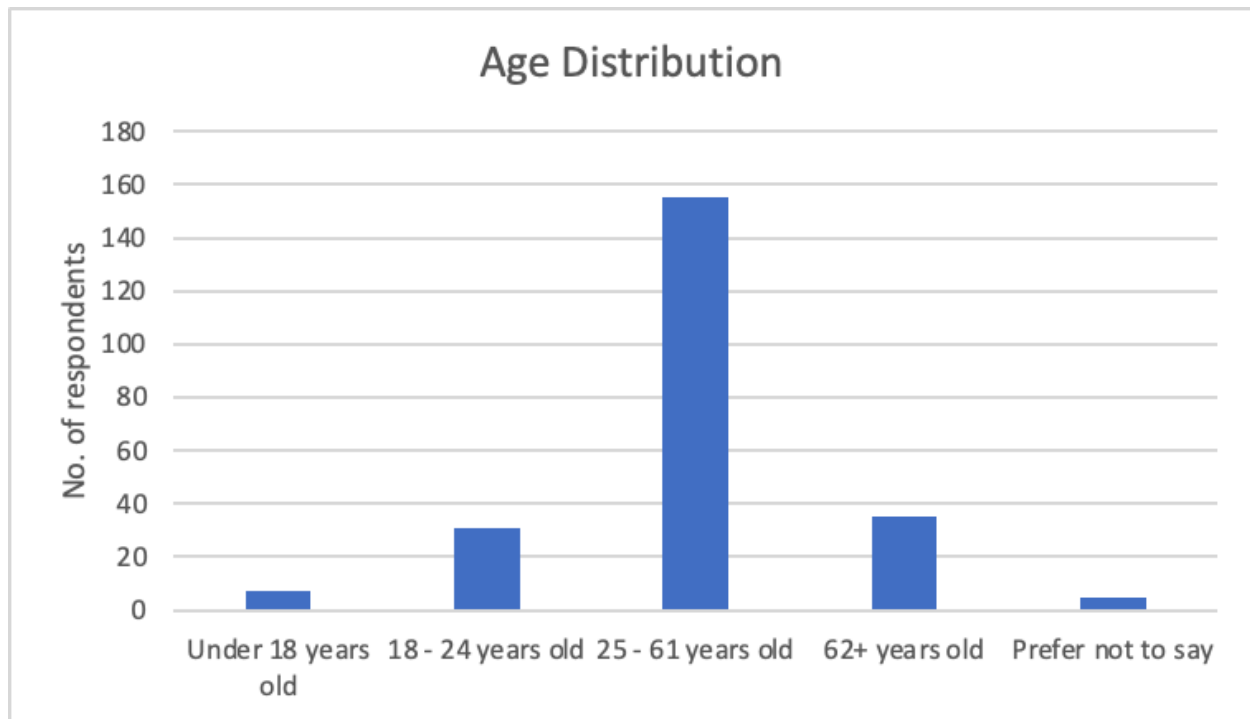
Ethnicity distribution

The majority of respondents are non-minority (59%) though a significant proportion are minority (33%).
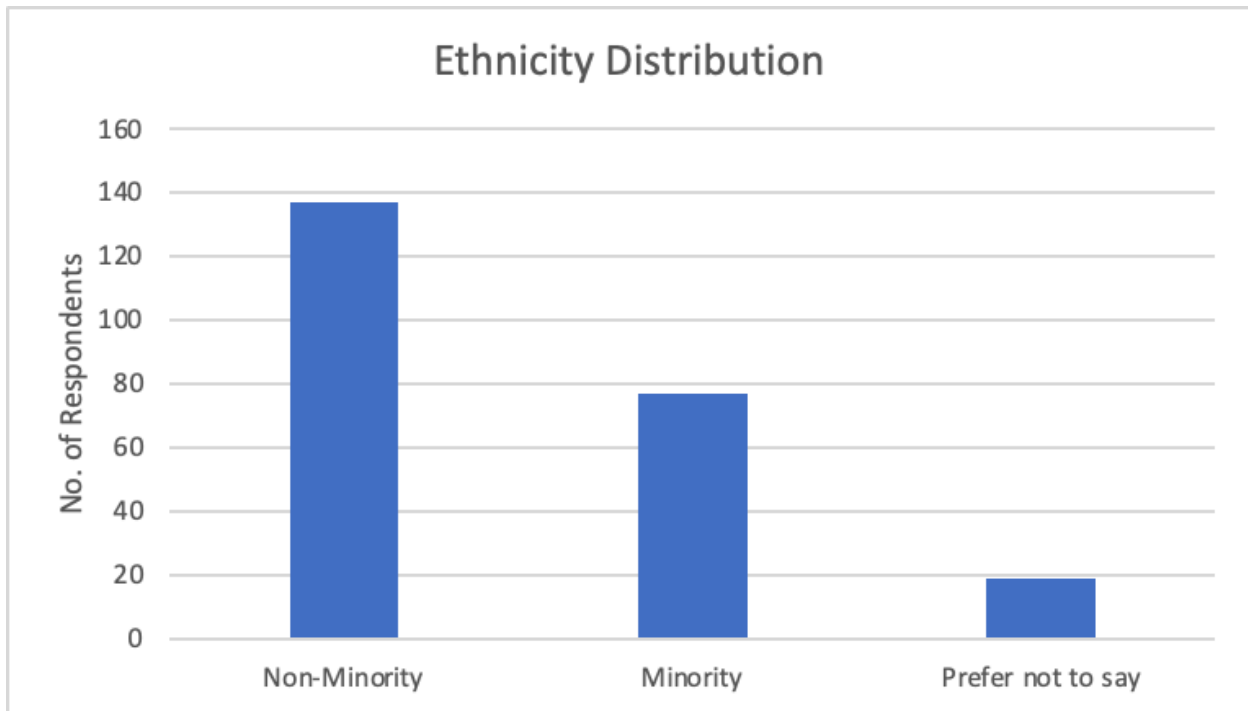
Household Income distribution

44% of respondents are from households with low incomes (based on 200% of the Federal Poverty Level), and 39% are from non-low-income households.

Household Income Distribution
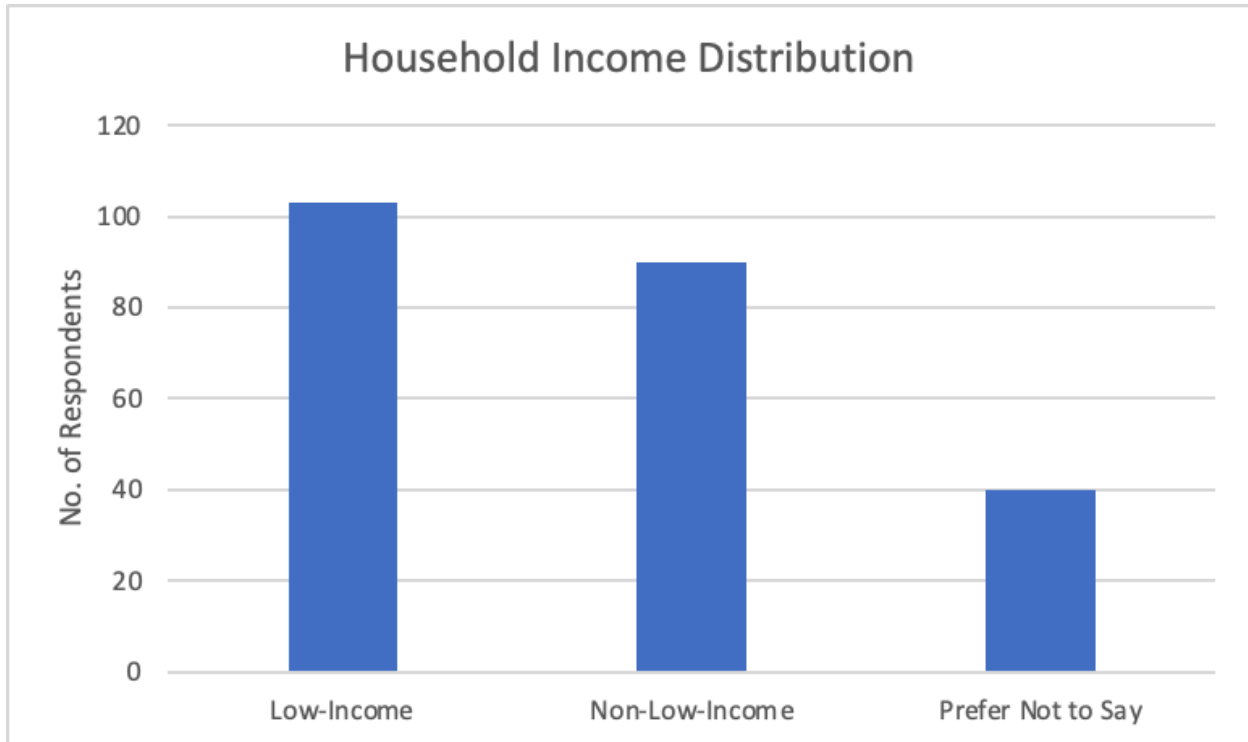
Disability

30% of respondents state that they have a disability which impacts their ability to travel, and 60% reported that they did not have a disability.

Is your ability to travel impact by a disability?
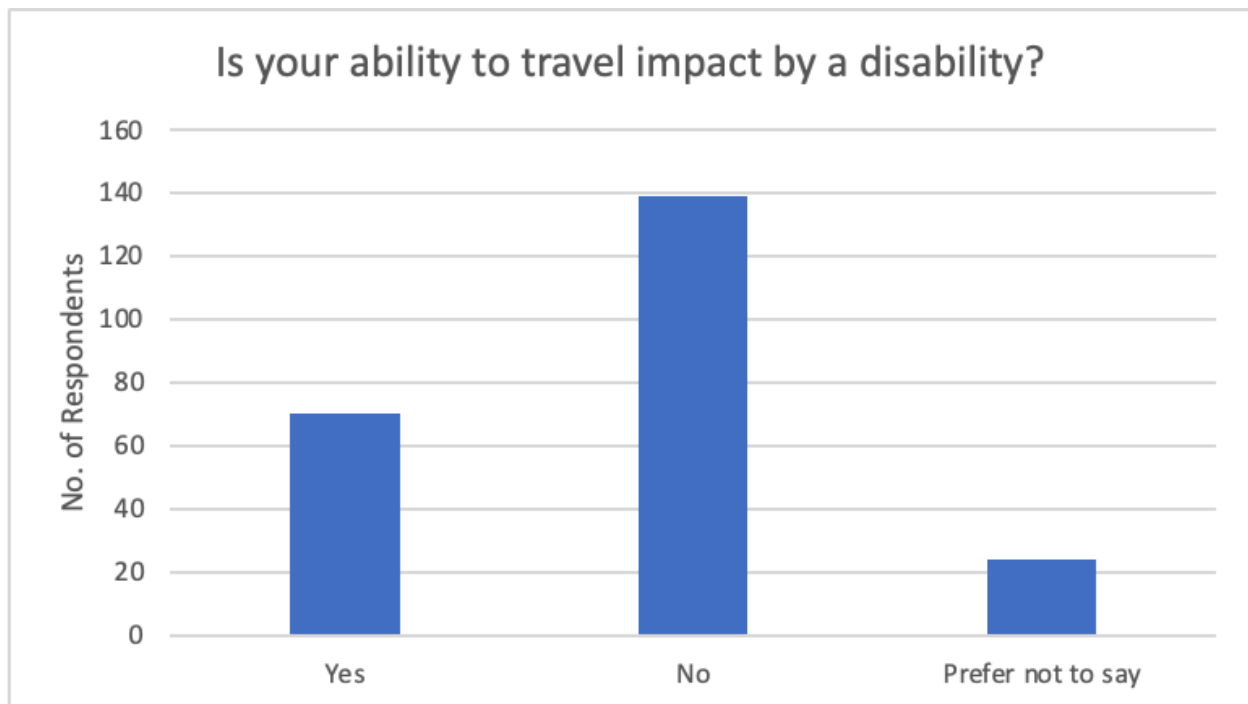
Access to Technology

The vast majority of riders have access to technology, enabling them to use electronic payment methods.

- 92% of respondents have a smartphone with a data plan
- 94% of respondents stated that someone in their household has access to a debit or credit card

Use of CCTA Services

This section analyzes responses to usage of CCTA services.

Travel Frequency by Mode

Only 5% of respondents stated that they never use the Metro Bus, compared to 61% of respondents who have never used Metro Connect and 53% who have never used Metro Link.
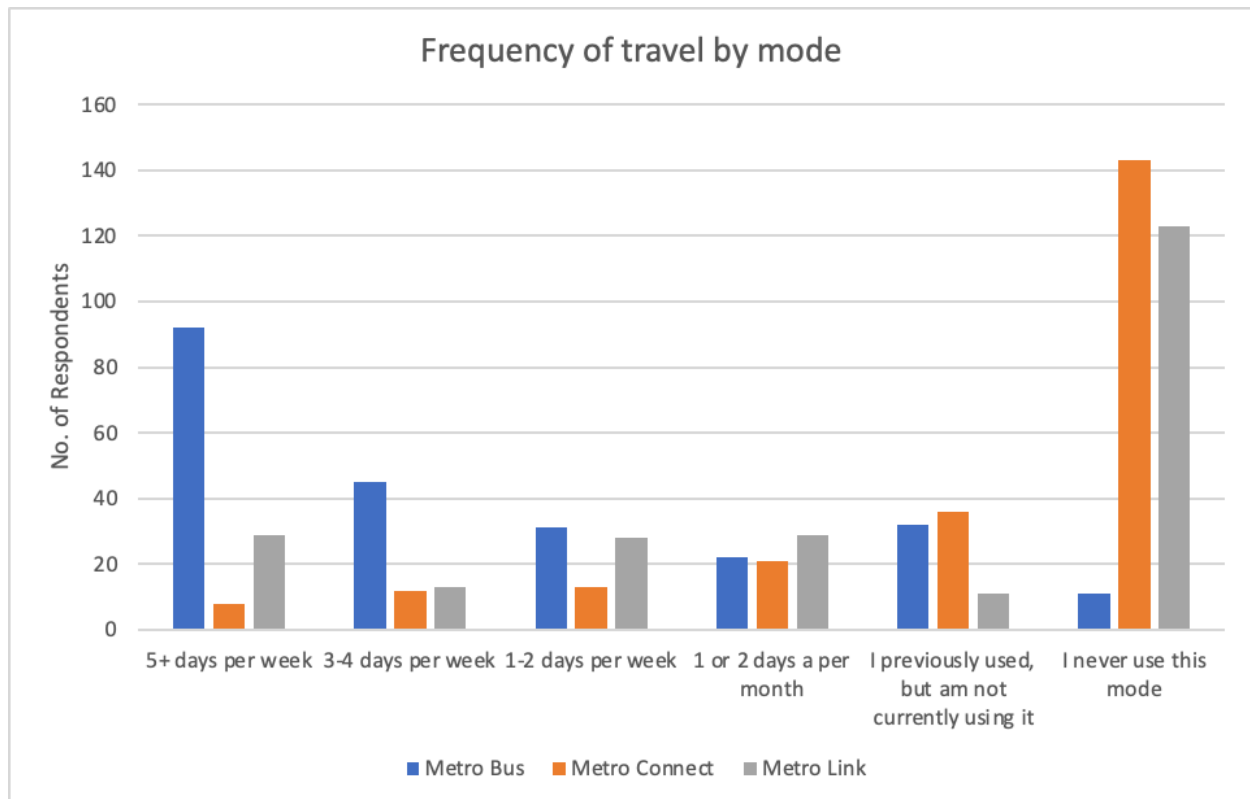
Metro Bus riders use the bus very frequently, with 39% using the Metro Bus system 5 or more times per day. Most of the survey respondents have not used Metro Connect, and those that have used the service generally travel very infrequently, with 9% using the service 1 or 2 times per month. Similarly, the majority of respondents have never used Metro Link. For those that have used the service, a similar proportion use it frequently and infrequently.

Percentage Frequency of travel by mode
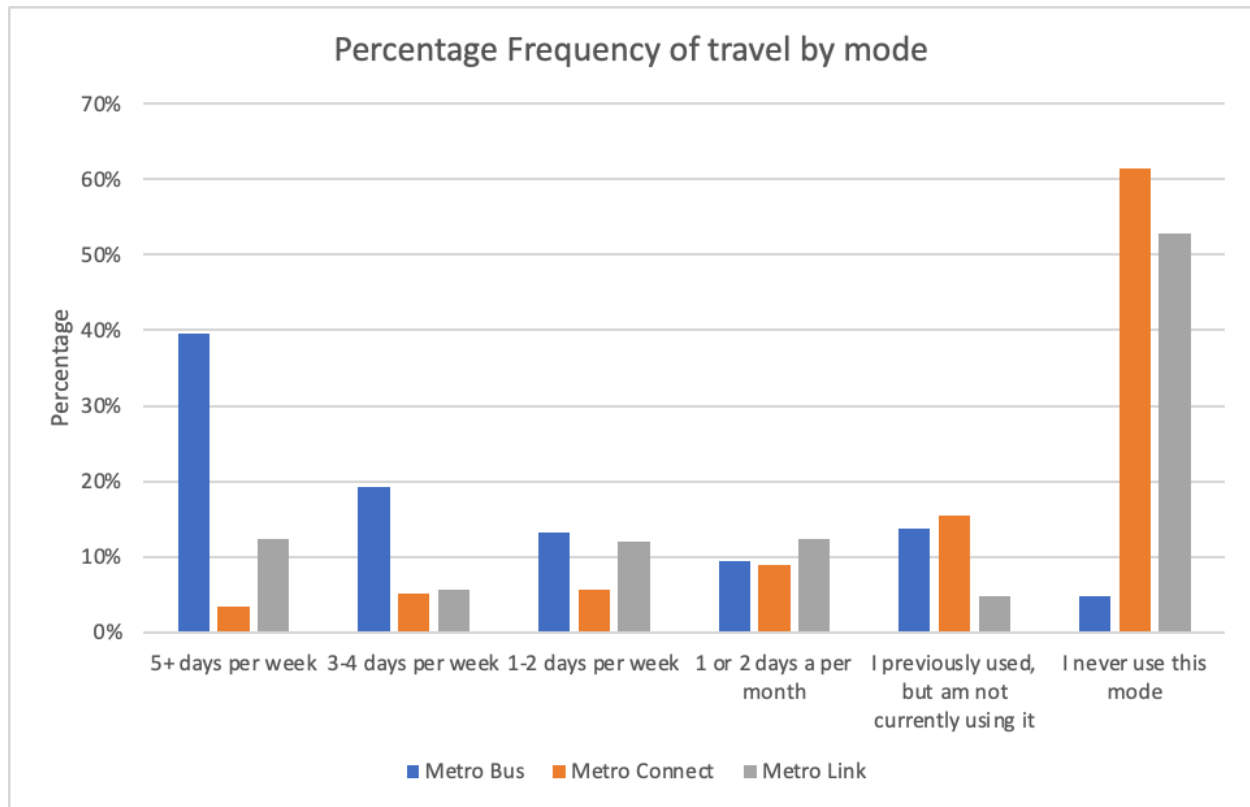
Rider Fare Payment Methods

The most commonly used fare payment method is the Token Transit App (37%). A significant proportion of respondents pay with cash onboard (26%).

Usual Method of Fare Payment
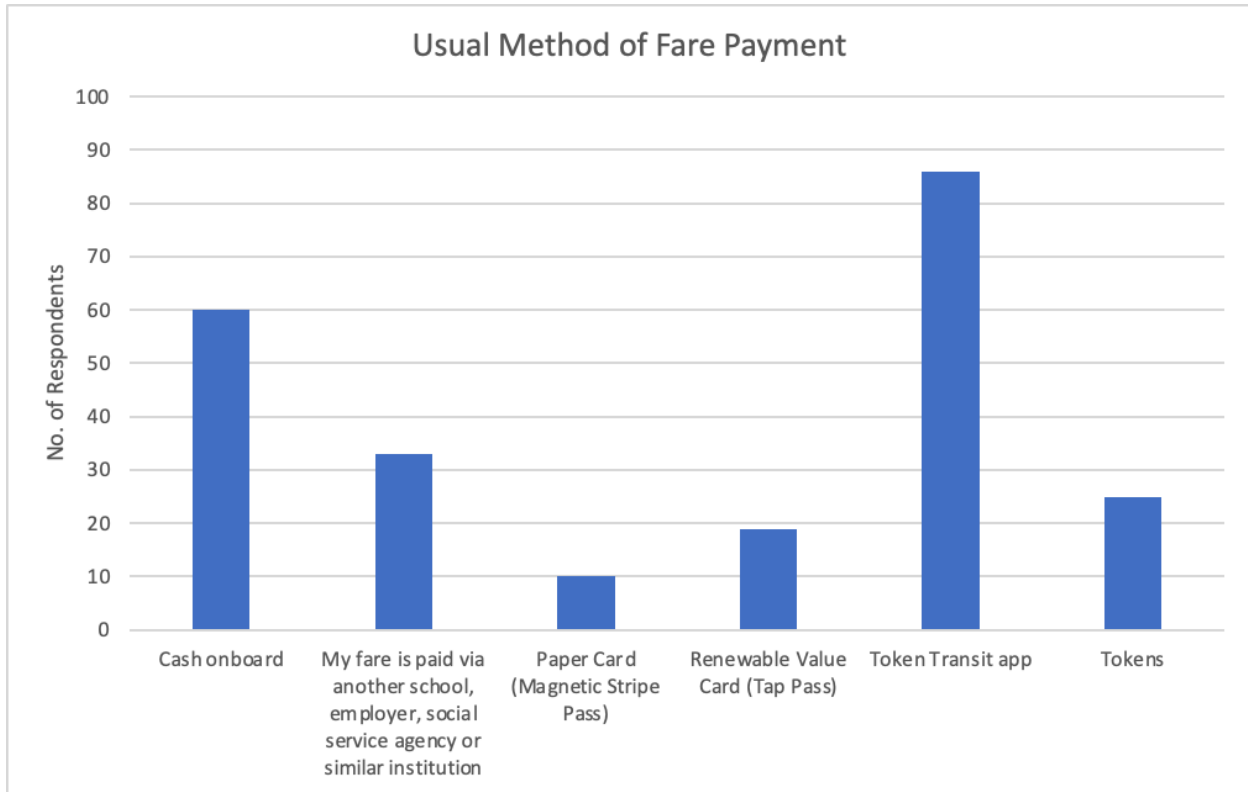
44% of riders are from households with low incomes. There are proportionally more riders from households with low incomes who use Tokens, and have their fare paid via an organization. 60% of riders who purchase Tokens are from households with low incomes. Since tokens are the only fare media where Bridge Card holders can purchase discounted fares, 55% of riders whose fare is paid by an organization are from households with low incomes.

Proportion from Low-Income Households by Usual Method of Fare Payment
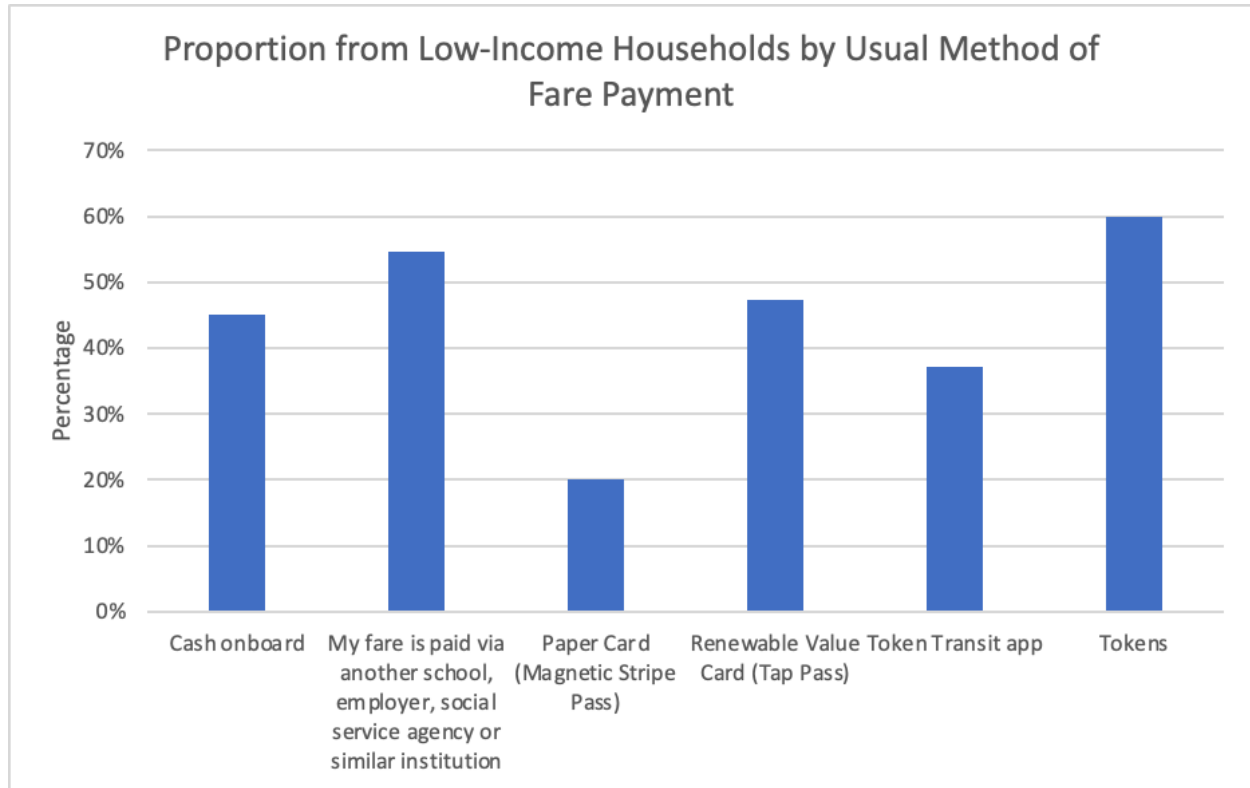
Note: Small sample sizes - Paper Pass (10), Renewable card (19)

Fare Type Usage

The most commonly used fare are Single Rides, with 69% of riders reported that this is the fare they purchase the most often. Only 12% of riders report that they purchase a Monthly Pass most often.

Fare Used Most Often
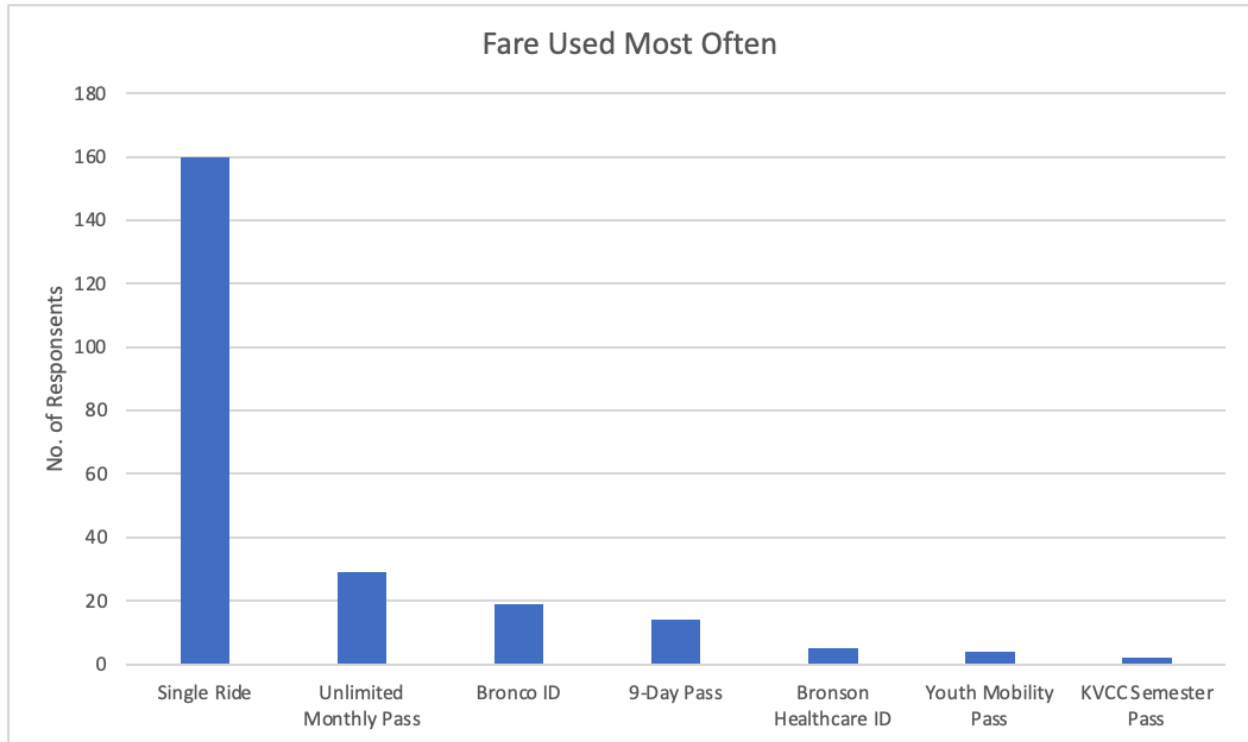
Over 50% of riders who purchase Monthly Passes or use a fare paid by an organization are from households with low incomes while over 40% of riders who purchase a Single Ride fare are from low-income households. The Bronco ID, Bronson Healthcare ID, Youth Mobility Pass and KVCC Semester passes were combined for this analysis due to small sample size.

Proportion from Low-Income Households by Fare Used Most Often

Note: Small sample sizes - 9 Day Pass (14)

Fare Discounts

47% of respondents report that they are eligible for a discounted fare.

- 24% of riders are eligible due to a disability (e.g. individuals with disabilities, Metro Connect certified or Medicare)
- 13% are seniors
- 9% are Bridge Card holders

Proportion of Respondents Eligible for Fare Discounts

- Bridge Card
- Individuals with disabilities
- Metro Connect certified
- Medicare
- Seniors
- None
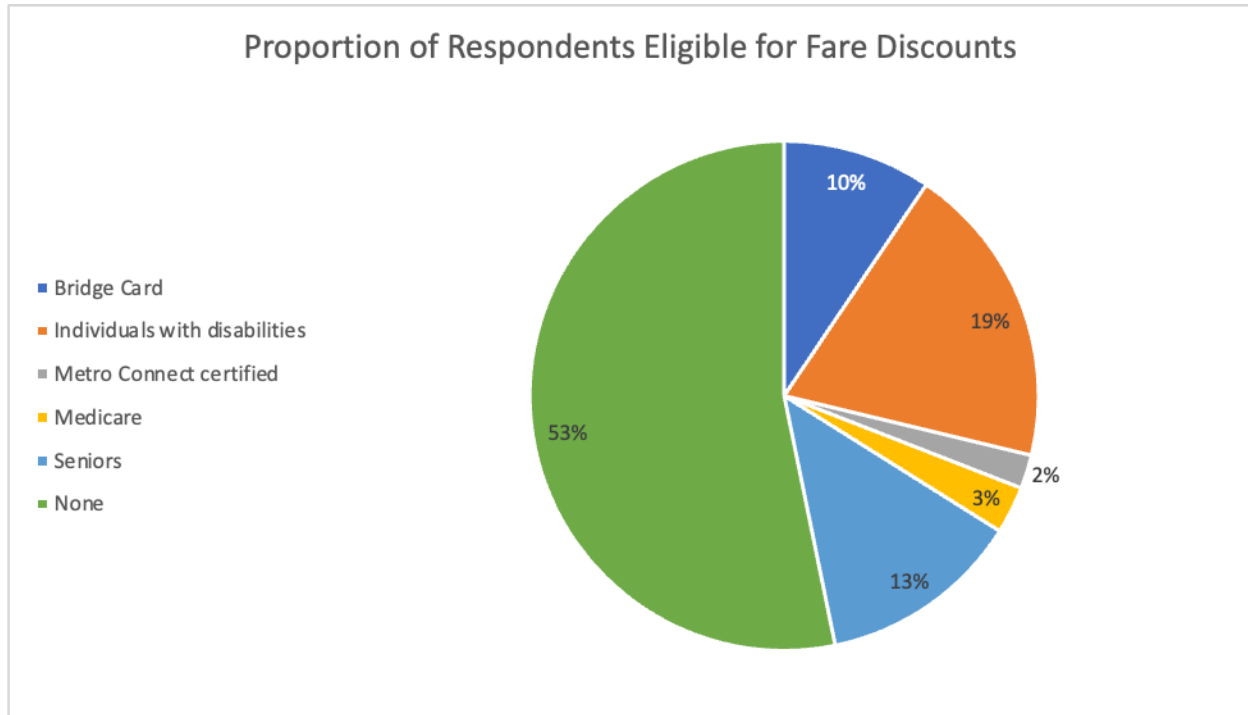
Fare Usage

Transfers

77% of single ride users normally transfer between buses on their journeys.

Single Ride Fare Purchases

The survey asked all respondents who stated that they usually purchase a Single Ride fare why they chose to purchase a Single Ride fare.

The most common answer was "I prefer to pay with cash on board" (30%). 27% responded that they do not ride Metro frequently enough to justify purchasing a 9-Day or Monthly pass, however, 7% travel 5 or more days per week. 9% responded that 9-Day and Monthly passes are too expensive but 10% travel 5 or more times per week.

Why do you choose to purchase a Single Ride?
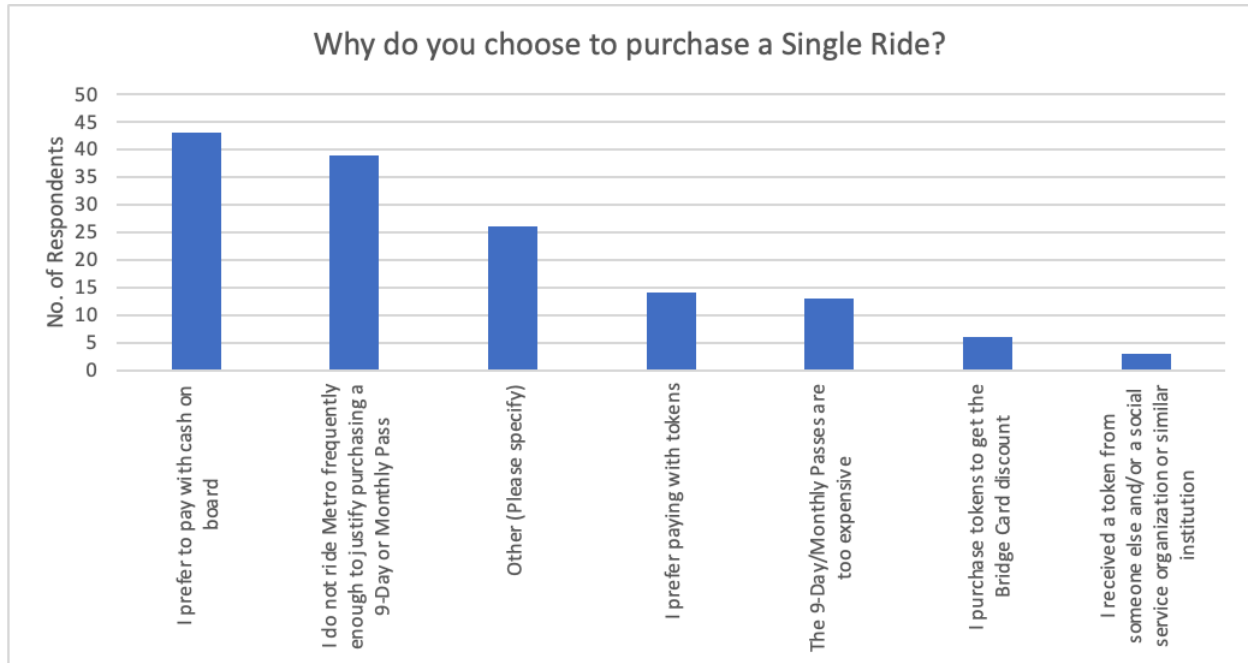
Monthly Pass Purchases

The most common response from riders who purchase a Monthly pass was that they are frequent riders and the passes are cost effective (57%).

Why do you choose to purchase a Monthly Pass?
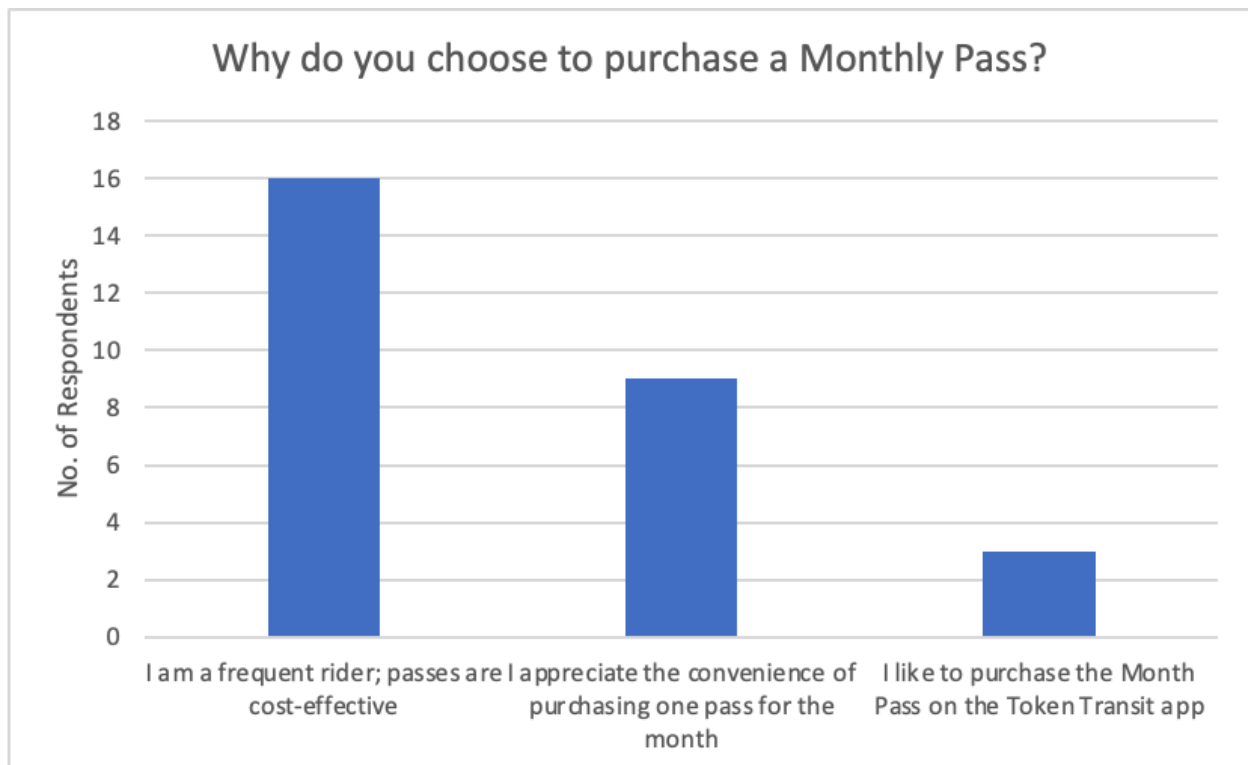
Cash Onboard

26% of respondents stated that they usually pay with cash onboard.

The most common response to why they use cash was "I prefer to use cash" (25%). There was a similar proportion of responses for "I am not a frequent rider" and "Cash is the most convenient".
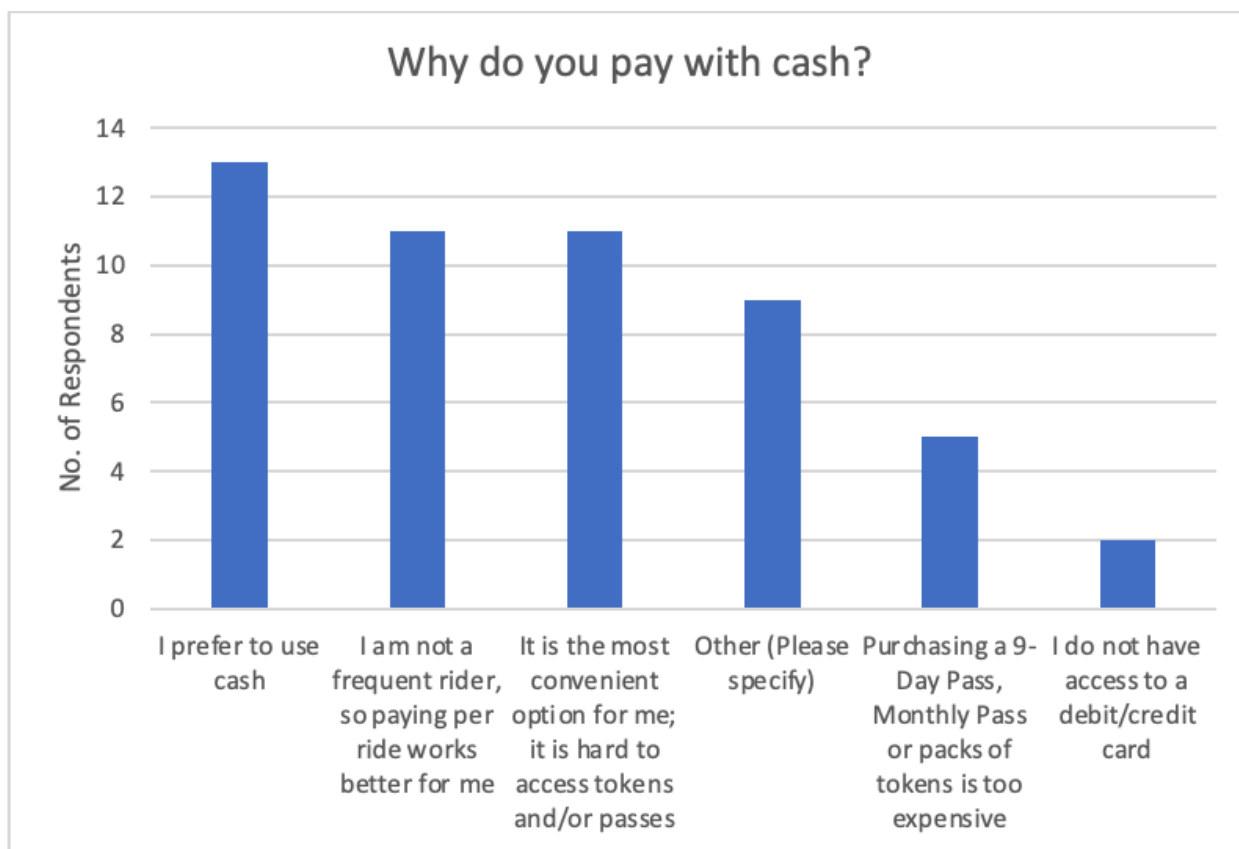
18% of riders responded "Other". Here is a summary of their responses:

- I am not a frequent rider, so paying per ride works for me on the bus...it's a waste to buy tokens on an app and have it expire…
- I believe this way is better
- My fare is .75 cent one way
- Because I couldn't pay through the link app for my bus fare when forced to go from link to bus
- Senior pass card
- I make tips

Tokens

11% of respondents stated that they usually pay with Tokens.

The most common response to why they use Tokens was "It is easy and convenient for me to purchase Tokens" (42%). 29% stated that "I use my Bridge Card to purchase discount tokens". Tokens are the only

fare media which allows riders to receive a discount with a Bridge Card.

The person who responded "Other" wrote "Carry around less".

Why do you pay with Tokens?

Renewable Cards

8% of respondents stated that they usually pay with Renewable Cards.

When asked the reason for using Renewable Cards, the most common answer was "It is easy and convenient for me to purchase and reload the Renewable Value Card" (47%).

Why do you pay with a Renewable Card?
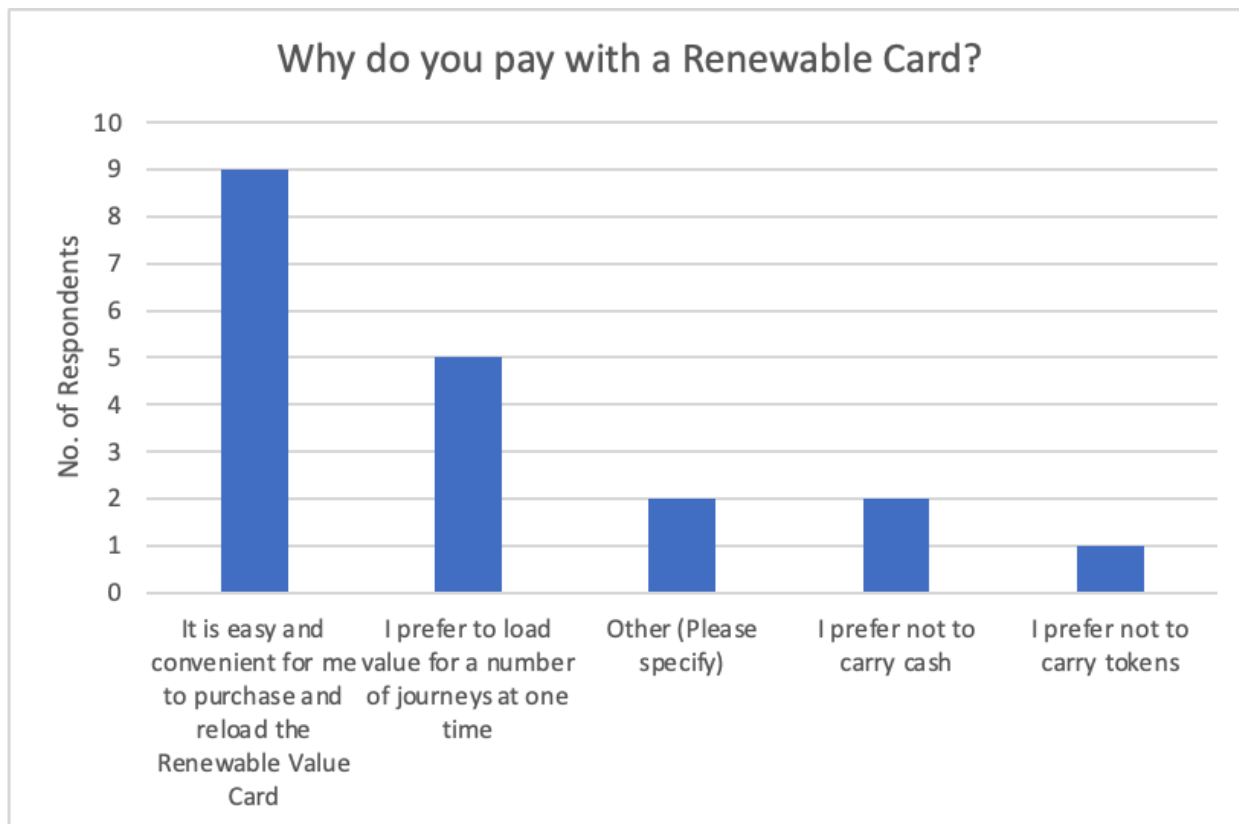
Note: Small sample size (19)

A number of respondents provided written responses to this question. The written responses highlight discount fares as a key factor in fare media choice.

- To use my disability discount
- I reload my Medicare discount card when I'm in Kalamazoo. I wish there was an online way to do it
- Because I can't purchase Tokens with a discount

Token Transit

37% of respondents stated that they usually pay with the Token Transit App.

When asked the reason for using Renewable Cards, the most common answer was "It is convenient for me to purchase fares on my phone" (66%).

Why do you pay with the Token Transit app?
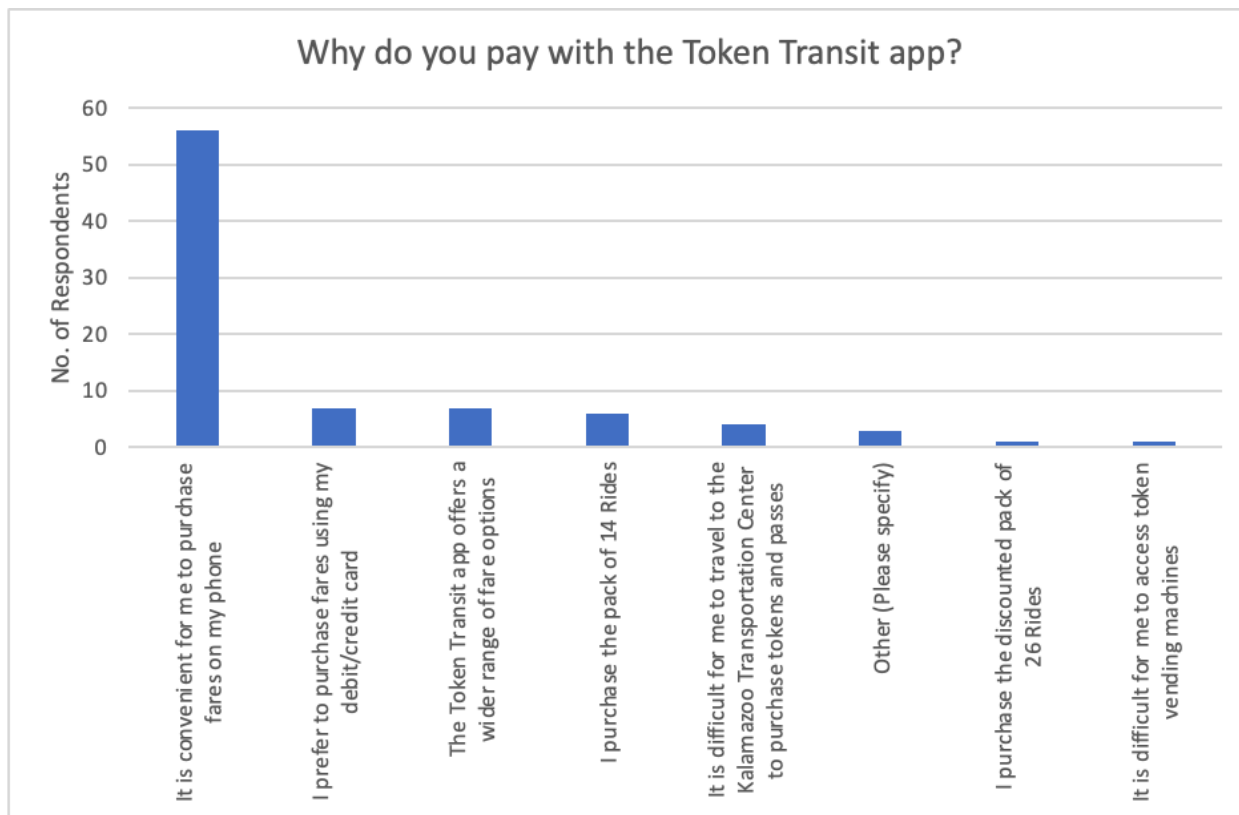
A number of respondents provided written responses to this question. The responses highlight the benefit of being able to use credit/debit cards with the Token Transit App and being able to purchase fares without going to a specific location. They are summarized below:

- Easier than paying with cash and delaying the bus
- It's difficult for me to get to the transit center to buy tokens. Also there is a minimum $5 purchase for me to use my card to purchase physical tokens. Also most of my money is on my debit card. It's easier and cheaper to use the token transit app as a single mom to a 3 year old and a 4 month old. I don't have to try and pull out my tokens while hauling them on the bus or using a bus token to get to the transit center to buy more tokens. It would be easier if I was able to just use my debit card to tap to pay when I got on the bus vs trying to pull up the token transit app and hoping it loads.
- Token transit is the only option to use to pay or credit card linked to the app but no transfer with it
- The monthly pass suits my everyday needs best

Fare Option Preferences

Riders Opinions of Fare Products

The survey included a set of questions to understand riders' opinions about the current fare structure.

At the top end, 81% of riders agree/strongly agree that "Metro fares are easy to understand" and 67%

agree/strongly agree that "It is convenient to pay for fares".

However, only 44% agree/strongly agree that "It is easy to access locations to purchase passes or tokens" and 47% agree/strongly agree that "The Monthly Passes are affordable compared to Single Ride fares".

This suggests that the recommendations of this Fare Study increase the number of locations/ease of purchasing a fare. Recommendations should also consider reducing the pass multiples, so that riders do not need to make as many trips to break even and make Monthly Passes good value for money.

Monthly Passes are affordable compared to Single Ride by Fare Used Most Often
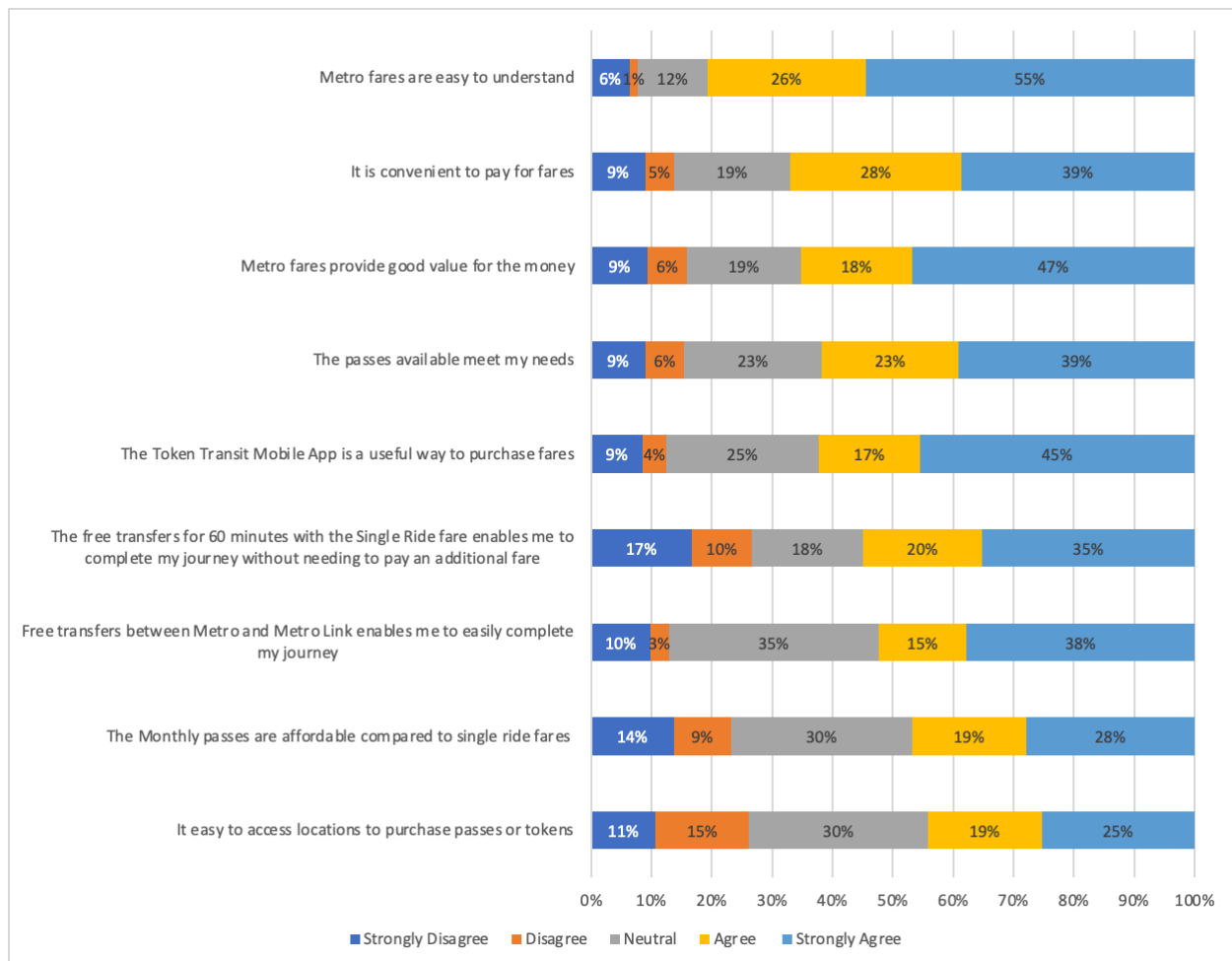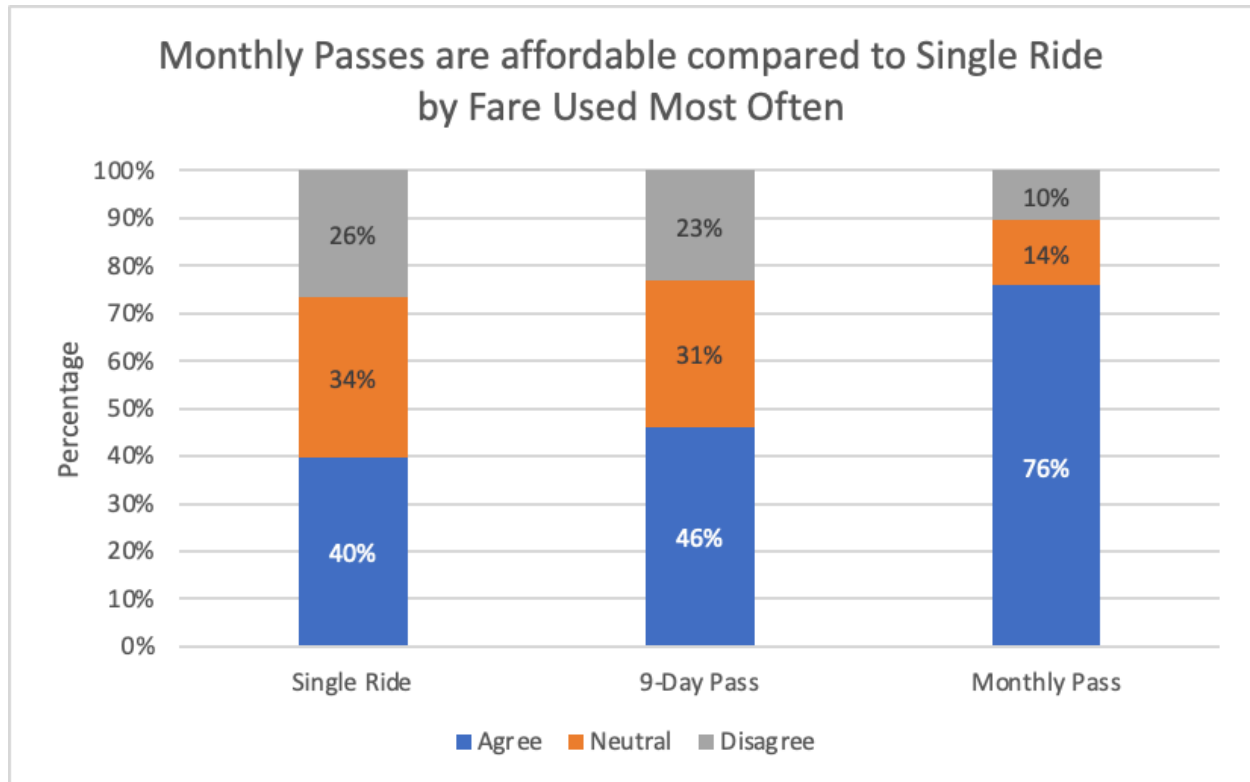
The chart above shows agreement/disagreement about Monthly Pass affordability by the current fare most commonly purchased. Single Rider users are less likely to agree that Monthly Passes are affordable.

Rider Opinions of Discounts

Generally, riders agreed with the statement that the available discounts enable eligible riders to use CCTA services. Though, the response suggests that simplifying the youth fares may help riders.
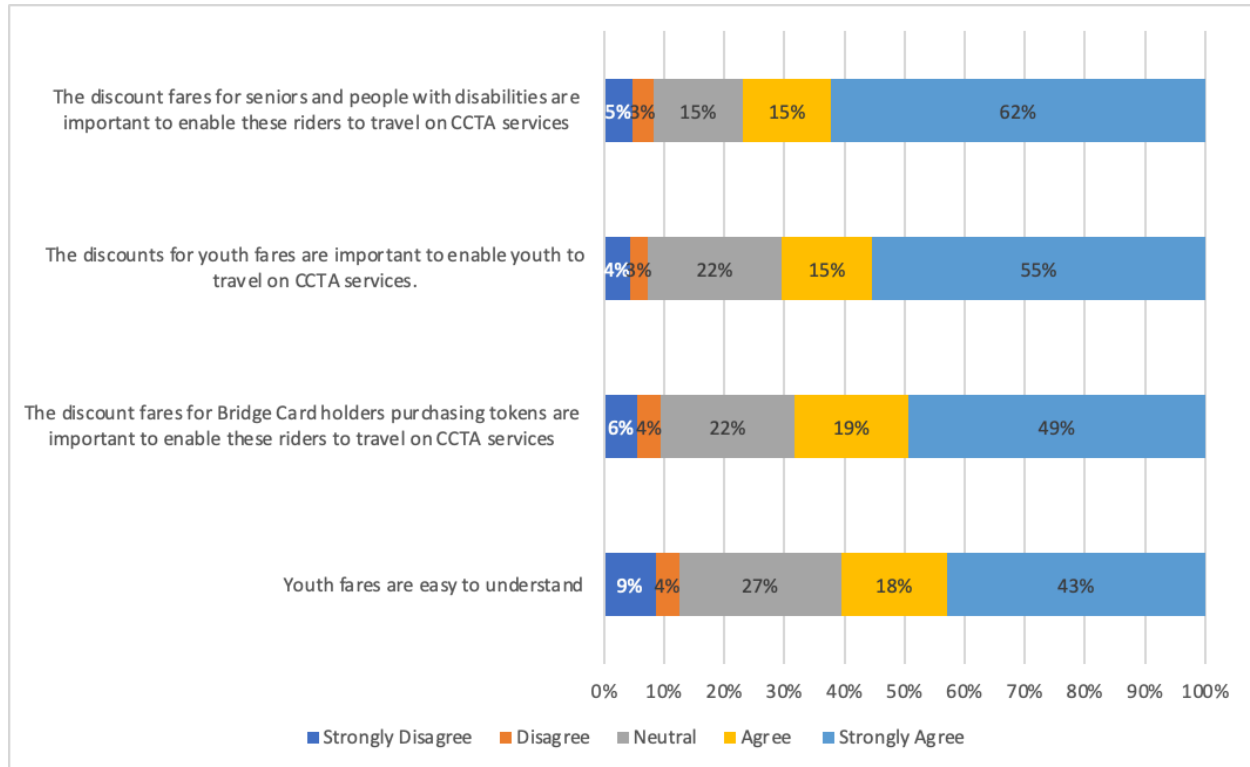
Day Pass Introduction

We asked riders "If CCTA introduced a Day Pass for unlimited travel on Metro for one service day, would you consider purchasing it?". The question did not include any information about the possible cost of a Day Pass. The results of the survey suggest that riders would use a Day Pass if one was introduced.

55% of riders stated that a Day Pass would work well for them.
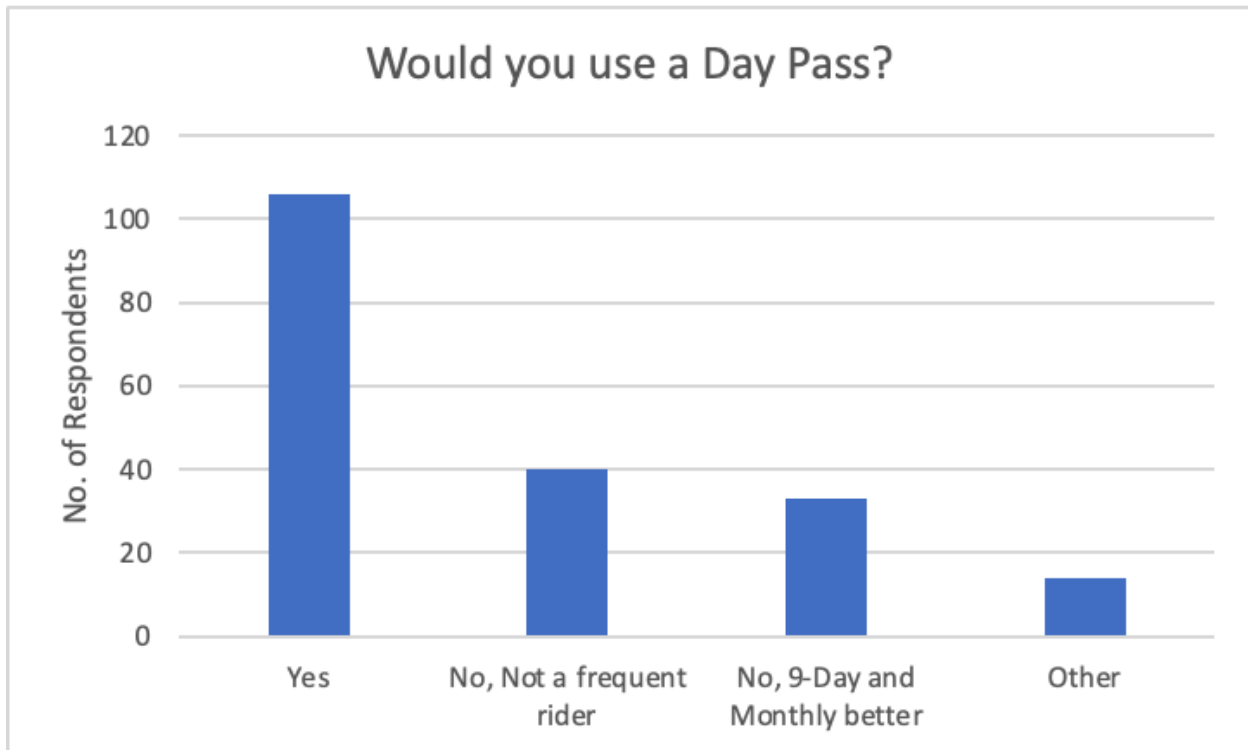
The chart below shows that a higher proportion of riders who currently usually purchase a Single Ride fare would purchase a Day Pass.

- 59% of Single Ride users stated they would use a Day Pass
- 46% of 9-Day Pass users stated they would use a Day Pass
- 38% of Monthly Pass users stated they would use a Day Pass

Would you use a Day Pass? By Fare used most often
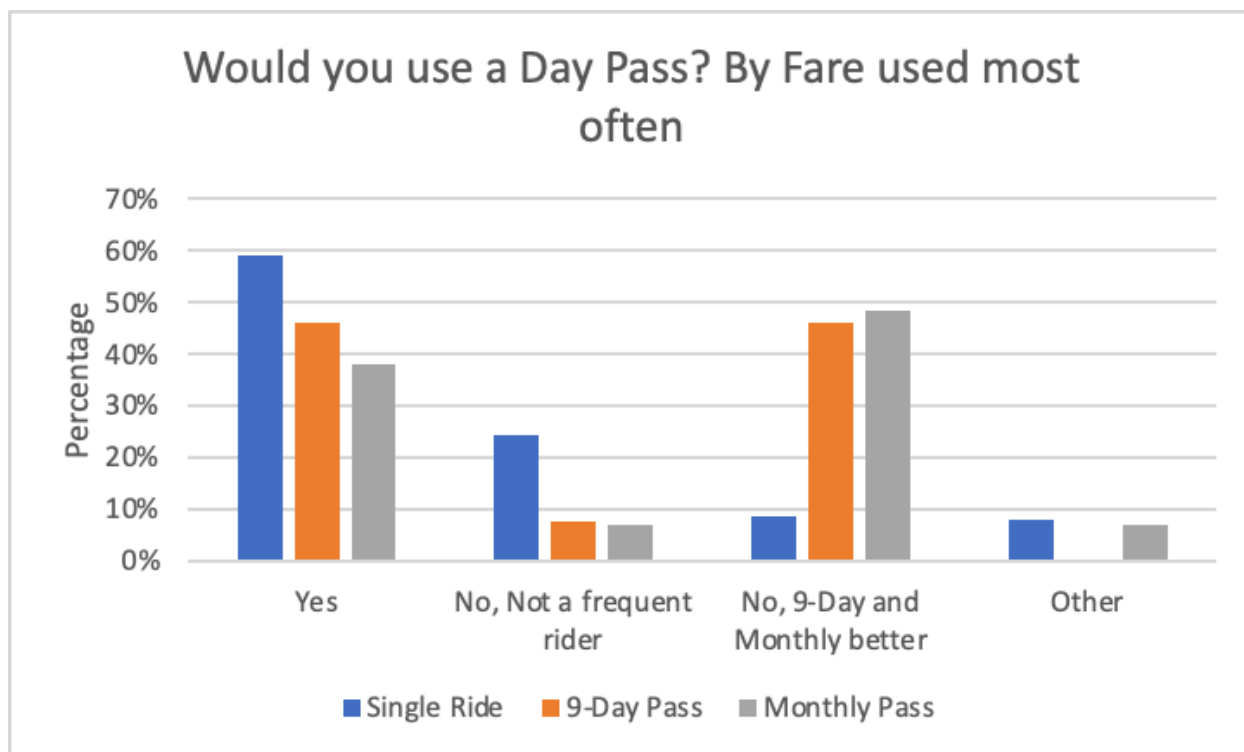
Note: Small sample sizes - 9 Day Pass (13)

Discount Period Passes

We asked riders "If you receive a discount on Metro fares because you are a Senior, a Medicare card holder, and/or an ADA-eligible rider, would you purchase a discounted Day Pass or Monthly Pass?". The question did not include any information about the possible discount. The results of the survey suggest that eligible riders would use discounted period passes if they were introduced.

82% of riders who are eligible for discounted fares state that they would consider purchasing a Day or Monthly pass.

Would you use a Discount Period Pass?
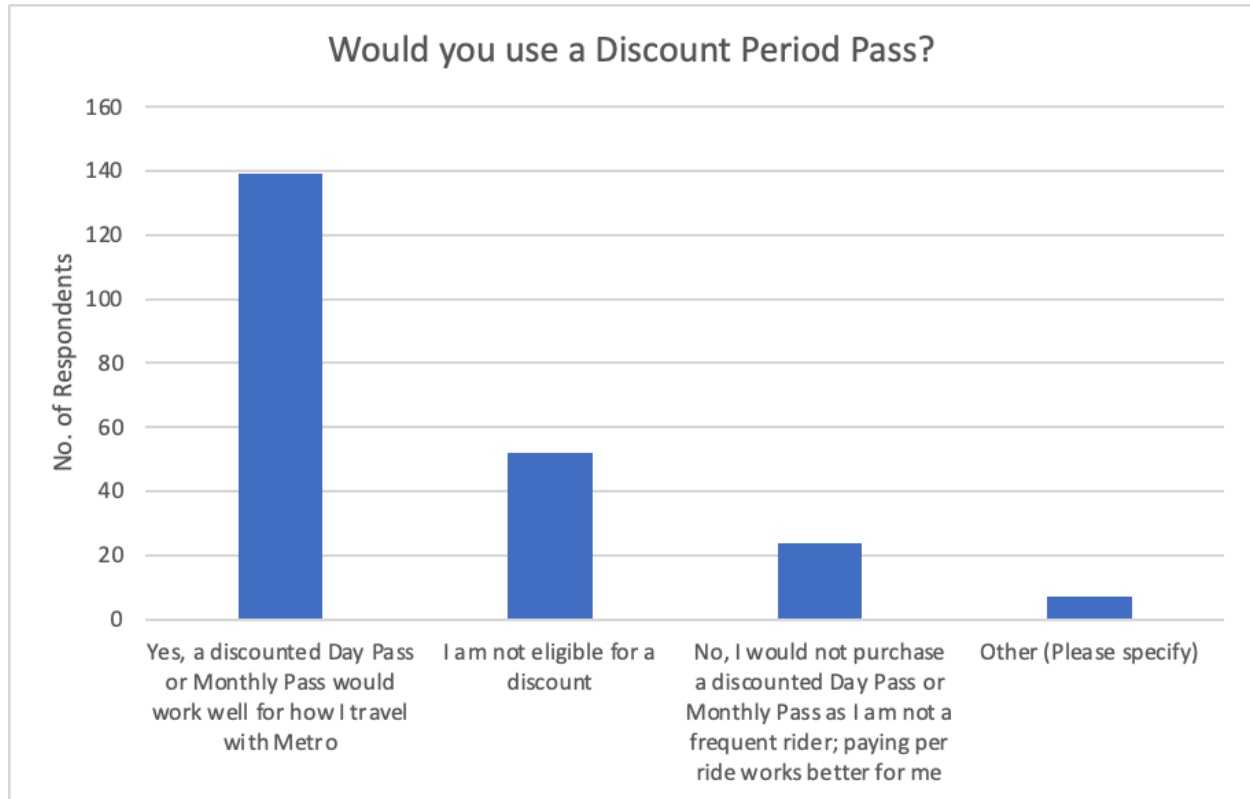
Riders who are eligible for a discount are frequent riders, with 35% travel 5 or more times per week on Metro Bus services.

Frequency of travel of those using a Discount

Frequency of travel by Discount Type

Legend: Bridge Card | All disability categories | Senior
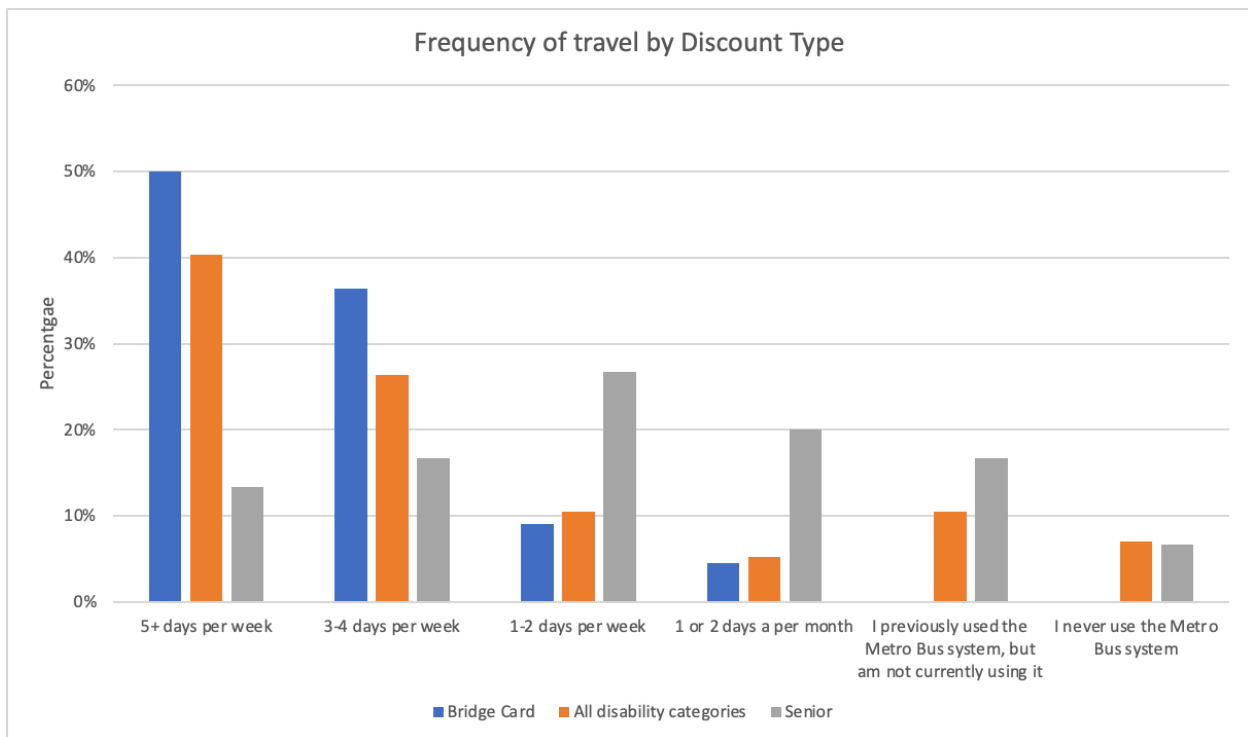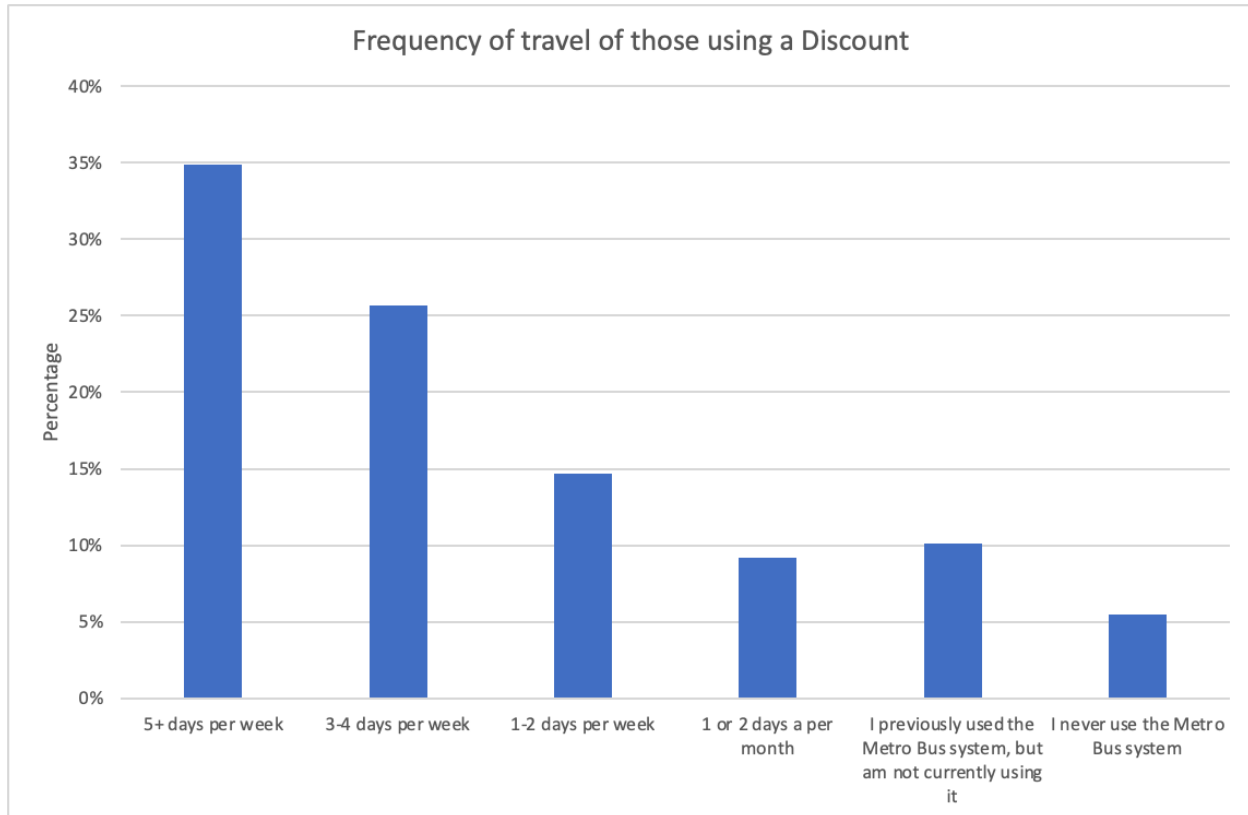
The chart above shows the frequency of travel on Metro Bus services for discount eligible riders split by the discount eligibility. It shows that Bridge Card and individuals with disabilities are very frequent riders,

with 50% and 40% travelling five or more times per week, respectively. Seniors are less frequent riders so less likely to benefit from discount period passes.

Future Payment Method

In the survey, we asked how riders would like to pay for their fares in the future.

The most common response was with a Mobile Ticket on a phone (36%), then cash on board (19%). A significant proportion would prefer to pay with Renewable Value Card or credit/debit cards onboard. The least popular payment methods were Paper Passes and Tokens.

It is notable that 13% of respondents would prefer to pay with credit/debit cards onboard as this would be a completely new fare media and one that is relatively new across public transit agencies in the US.
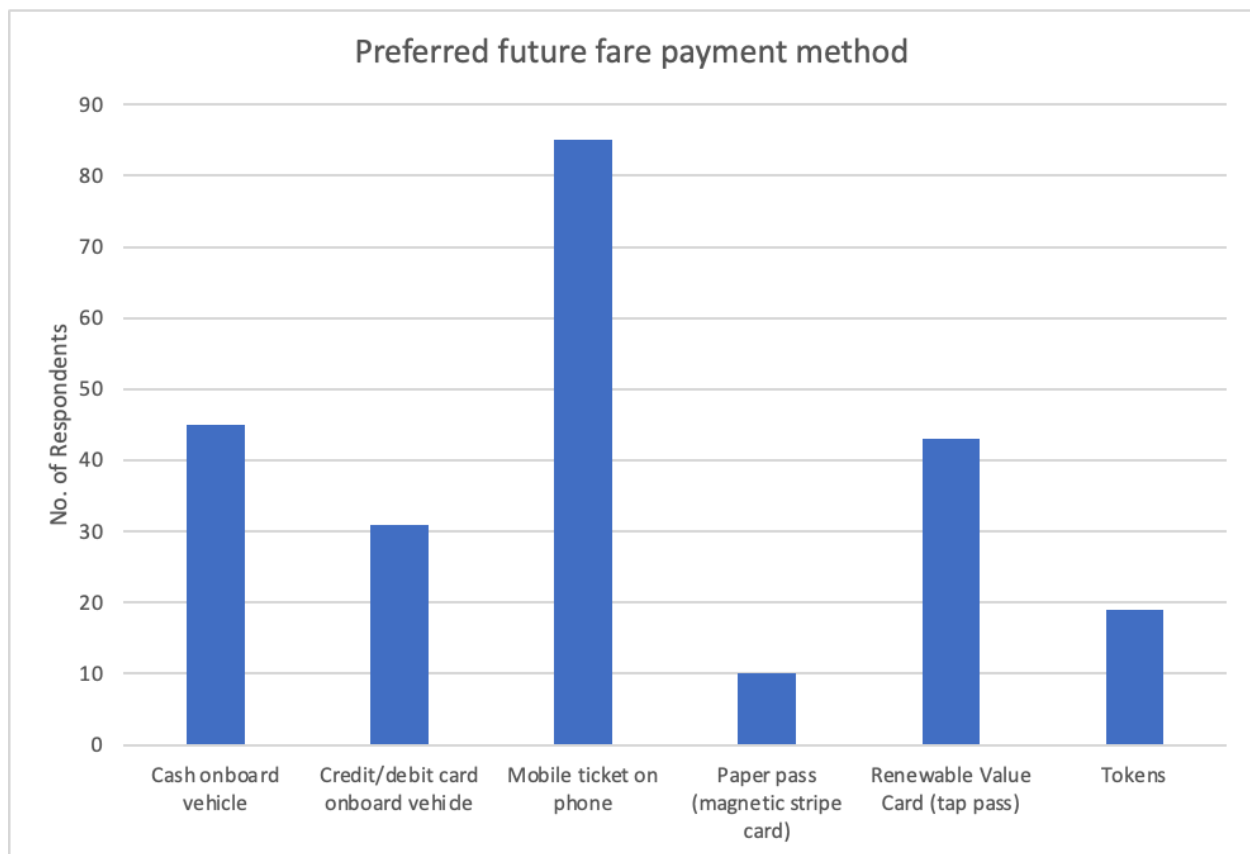
Note: Small sample size - Paper Pass (10), Renewable Value Card (19)

Other Comments

One rider provided a comment related to the cost of youth fares.

- Unhappy that Elementary students have to pay when other children are free.

Appendix A: Customer Marketing of Survey

Banner on Metro Home Page

Social Media Post
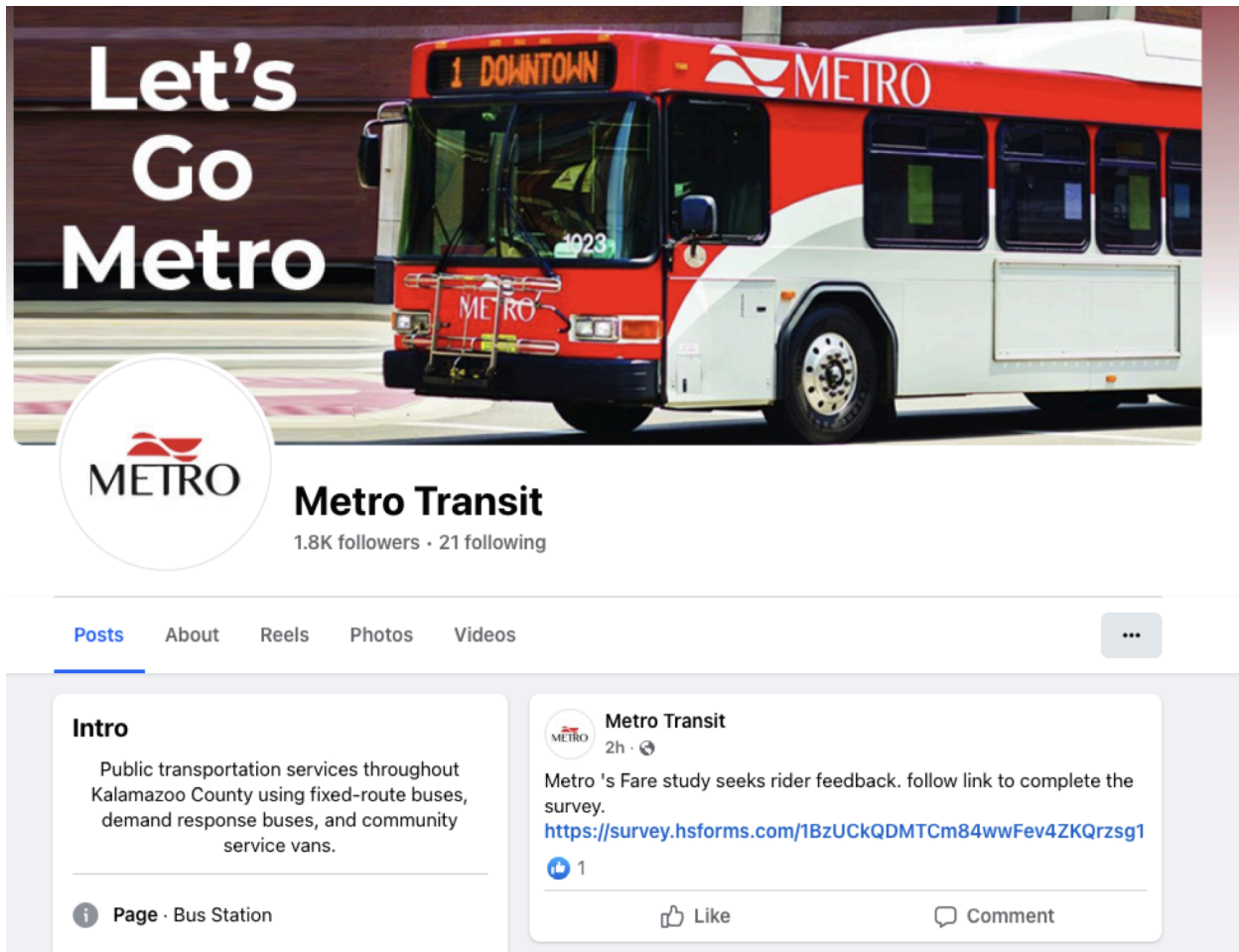
News Post on Metro Website

Appendix D: Strengths, Weaknesses, Threats and Opportunities Analysis

		Strengths	Weaknesses	Opportunities	Threats
Fare Structure and Policies	Metro	• CCTA offers similar pass products that peers do. CCTA's peers generally offer single ride fares, day passes, and monthly passes • As CCTA does, peers meet the FTA requirement of a 50% discount for adult single fares for seniors and people with disabilities. There is some variation in the age definition of seniors from 60 to 65 years old, with CCTA in the middle with 62 years old and younger than the FTA requirement • Institutional Pass Programs are well used • Service delivery is efficient, with high farebox recovery and route productivity • Most peers do not offer multi-ride passes and no other agency offers a bulk option (250 tokens)	• Metro fare structure is more complicated than needed, with some fare products and fare media choices that are underutilized (e.g.: 9-Day Passes) • Most riders purchase single fares, increasing number of transactions that riders and CCTA have to undertake • 9-Day Pass is unique amongst peers. • Peers generally offer free fares for children under 5 years old, while CCTA limits free fares for children to those under 2 years old • All riders making a bus transfer (using any fare media) need to ask for a transfer slip	• Peers generally offer a single, day pass and monthly pass. CCTA does not offer a day pass. • CCTA's pass multiples are the highest amongst its peers, so its riders are going to take longer to reach the break-even point for the passes and are more likely to stick with single ride products • Almost a quarter of trips are made using transfers between fixed route buses, suggesting a day pass may reduce transactions and provide value for money for riders • CCTA's peers have adult single fares between $1 and $2 compared to CCTA's $1.50 so an increase in the single fare is possible while remaining within the range.	

		Strengths	Weaknesses	Opportunities	Threats
	Metro Connect	• CCTA's paratransit fare is two times the adult single ride fare, meeting the FTA requirement	• Complicated fare structure for Metro Connect • Peers do not offer similar subscriptions for paratransit services • 45% of senior trips are booked using subscriptions (as paratransit eligible fares are the same for subscription and not, it is not possible to identify the proportion) • Metro Connect subscriptions for Adults and Children are not well used	• Opportunity to consolidate unique Connect fare eligibility to simplify structure. • Opportunity to allow ADA-certified customers to ride on Metro for free, as a method of reducing Metro Connect operating costs.	
	Metro Link	• Single fares for Metro Link are same as for Metro making the fare structure easier to understand for riders	• Fare structure differences between Metro and Link (free boardings in certain circumstances, inconsistent transfer experience, non-acceptance of Cash/Smartcard) increases challenges for operators and may result in increased opportunity for customers to 'game the system'	• Metro Link: Fort Wayne Public Transportation Corporation and CCTA offer discounts for different rider groups on their microtransit services with both offering 50% discounts for youth, seniors, and people with disabilities.	
Fare Distribution	Metro	• Large number of fare media options gives riders	• Not all fare products are available on all forms of fare	• While smartcard fees encourage customers to	

		Strengths	Weaknesses	Opportunities	Threats
		options	media, making it more complex for riders and may mean some do not purchase the "best" fare products for them. ● Smartcards can only be purchased at the Kalamazoo Transportation Center or via the Passes, Coupons & Tokens Order form.	reuse the cards, this also creates a pricing incentive to use paper tickets	
	Metro Connect		● Smartcards cannot be used on Metro Connect		
	Metro Link		● Smartcards cannot be used on Metro Link		
Technology and Data	Metro		● Large number of fare media options being maintained, including some which are no longer widely used by the industry ● Large upfront cost to obtain a renewable card, may be deterring riders from using this fare media ● Significant number of trips made using physical tokens which require additional CCTA effort to redistribute, including approximately	● Those peers offering smartcards have upgraded to newer account-based smartcards ● Those peers offering mobile ticketing electronically validate mobile tickets on fixed route ● Industry is trending towards cheaper to purchase and operate off-the-shelf fare collection systems, including mobile ticketing ● Open payments	● Tokens are beyond useful life and machines are increasingly difficult to continue to maintain ● 39 packs of 250 physical Tokens are purchased each month ● No other peer agencies offer physical tokens as a fare media ● All fixed route fareboxes are reaching the end of their useful life

		Strengths	Weaknesses	Opportunities	Threats
			3,500 Bridge Tokens per month ● Significant proportion of trips made using cash which is expensive to collect and increasing boarding times ● Smartcard purchases and reloads are only available in person, which may be discouraging riders from using this fare technology ● Token Transit tickets are visually validated ● Mobile ticketing and trip planning are currently offered in two separate mobile apps	functionality has become more affordable to implement and can reduce fare media distribution costs and effort ● 61% of responders to rider survey have a smartphone	
	Metro Connect	● Riders are able to purchase fares through Token Transit app			
	Metro Link		● Challenges with Token Transit sales for Metro Link		
Rider Demographics		● High proportion of frequent riders ● The majority of riders made a transfer on their trips		● 11% of riders are over 61 years old	

		Strengths	Weaknesses	Opportunities	Threats
Performance Trends		- Ridership for Metro (fixed route) and Metro Connect are recovering from decline due to the COVID-19 pandemic, though it is still below 2019 levels - Metro (fixed route) fare revenue has returned to pre-COVID-19 levels - Metro farebox recovery was 20% in 2024 similar to the rate in 2019. - Metro Connect's farebox recovery was 9% in 2024, higher than in 2019.	Fare revenue for Metro Connect remains significantly below 2019 levels, though has increased since 2021		

Appendix E: Fare Technology Trend Overview

Fare Study Fare Technology Exploration

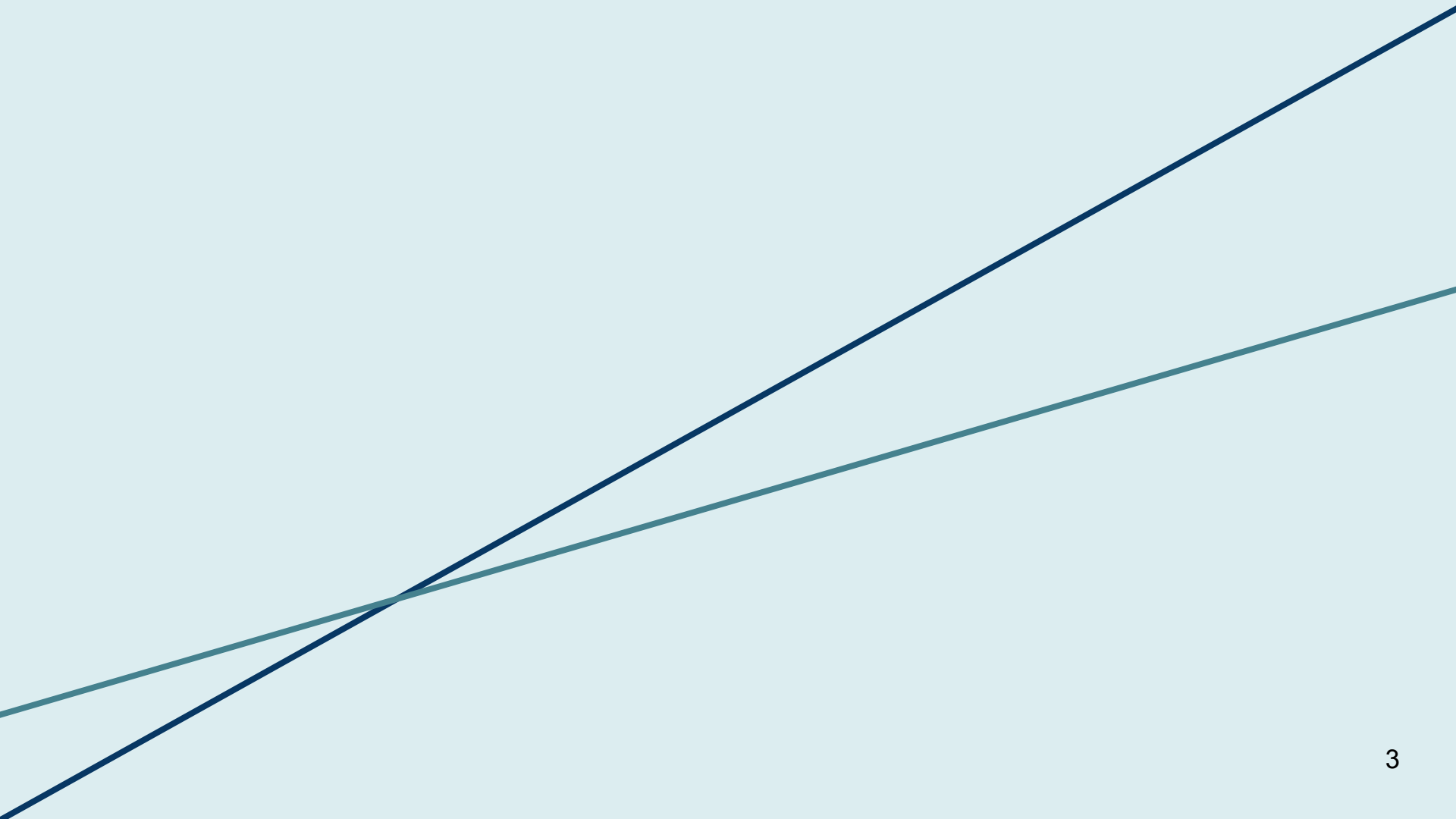## Four Nines Technologies and Amey Consulting

## July 1, 2025

Agenda

- Open Payments

- Retail Networks

- Electronic Only Transfers & Implementation Planning

Open Payments

Fare Media

- Electronic media can largely be sorted in **closed-loop** and **open-loop**

  - **Closed-loop** uses a form of currency that may only be used to pay for specific services and products - that is, transit value for transit rides

  - **Open-loop** allows customers to directly pay a fare using a bank issued contactless credit/debit card

- Both open- and closed-loop media can be presented using a physical card or virtually as a "card in wallet"

Open-Loop   *Closed-Loop*

Physical Card

Card in Wallet

4
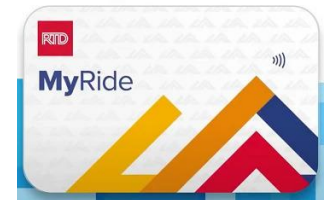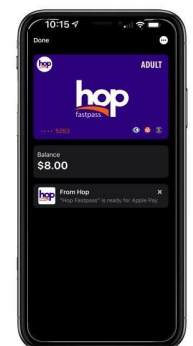
cEMV: Overview and Benefits

- cEMV (also referred to as open or open-loop payments) **allows customers to directly pay a fare using a bank-issued contactless credit/debit card**, such as by tapping their card directly on a validator.

- This can take the form of tapping a physical bank-issued card or using a bank-issued card loaded in the phone's wallet or on a wearable.

- Accepting cEMV provides customers a way to pay using a payment instrument that is already in their wallet, **avoiding the burden of exchanging their universally accepted currency** (cash or credit card) **for transit currency** (transit ticket or transit smart card) and reducing reliance on infrastructure to add transit value.

- Potential benefits of cEMV acceptance:

  - Reduce an agency's fare media acquisition and distribution costs
  - Remove the friction associated with multi-agency or multi-modal trips
  - Speed up boarding

Select U.S. cEMV Transit Implementations - Now 30+!

Flint MTA launched open payments in 2024 as part of a full fare collection overall which included new fareboxes and the launch of fare capping.

Monterey-Salinas Transit in CA began an open payments pilot project in 2021 the through California Integrated Travel Project (Cal-ITP) and has announced plans to move to cEMV only in the coming years

Madison, WI just launched open payments in June 2025, 7 months after launching ABT with Masabi, the same provider as EZFare

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cEMV: Accessibility

- There are more than 500 million contactless cards in the US market and 37% of face-to-face Visa transactions in the US are done with a tap - up more than 10 percentage points since last year (2022 to 2023). More than half (51%) of Americans are now using some form of contactless payment

- However there is still concern regarding access of these products among un- and under-banked customers in the transit space

- Promotion of a General Purpose Reloadable (GPR) card reload network can help address this concern

- At these networks, customers can load value to GPR bank cards that they can then use like any other credit/debit card to pay their fares directly on cEMV-accepting transit services

- Typically, riders must pay a flat fee (e.g., $1-5) to add value to a bank card at a GPR card reload network retailer. Outlaying or pre-positioning funds to a closed-loop transit card ties that money up to transit and makes it unavailable for other costs (e.g. groceries, health care, housing). Loading those funds to a bank card instead leaves that money available for use anywhere that accepts bank cards, potentially reducing the impact of the fee

- Cash App, one such GPR card reload network, has been promoted by Monterey-Salinas Transit as part of its launch of cEMV acceptance as part of the statewide Cal-ITP initiative. Customers pay only $1 to load value to their Cash App card. MoCaFi, another GPR card reload network, offers free reloads.

cEMV: Implementation Requirements

- EMV-certified validators are required. Additionally, validators will need to be received, installed, and operated in a PCI compliant manner.

- New middleware will also be required to handle cEMV taps.

- Accepting cEMV will involve a commitment to maintaining compliance with the relevant standard such as EMV, PCI, and MTT and the costs associated with compliance.

A Note on Costs

Until very recently, a $0.25 per transaction fee made the cost to accepting cEMV in transit in the U.S. prohibitively expensive for many agencies.

However the costs associated with accepting cEMV in transit is going down significantly, as this per transaction fee is going away for small value transactions in a transit setting (e.g. transactions of less than $15).

Today, agencies can expect to pay the higher of ~7% in transactions costs or $0.10/transaction. Costs are continuing to drop and may be lower as part of joint procurements (e.g., NEORide)

This change makes it much more affordable for transit agencies to consider accepting cEMV.

Key Takeaway:

cEMV acceptance can be implemented as part of an existing account-based system or as a separate system operating in parallel using the same physical equipment

Retail Networks
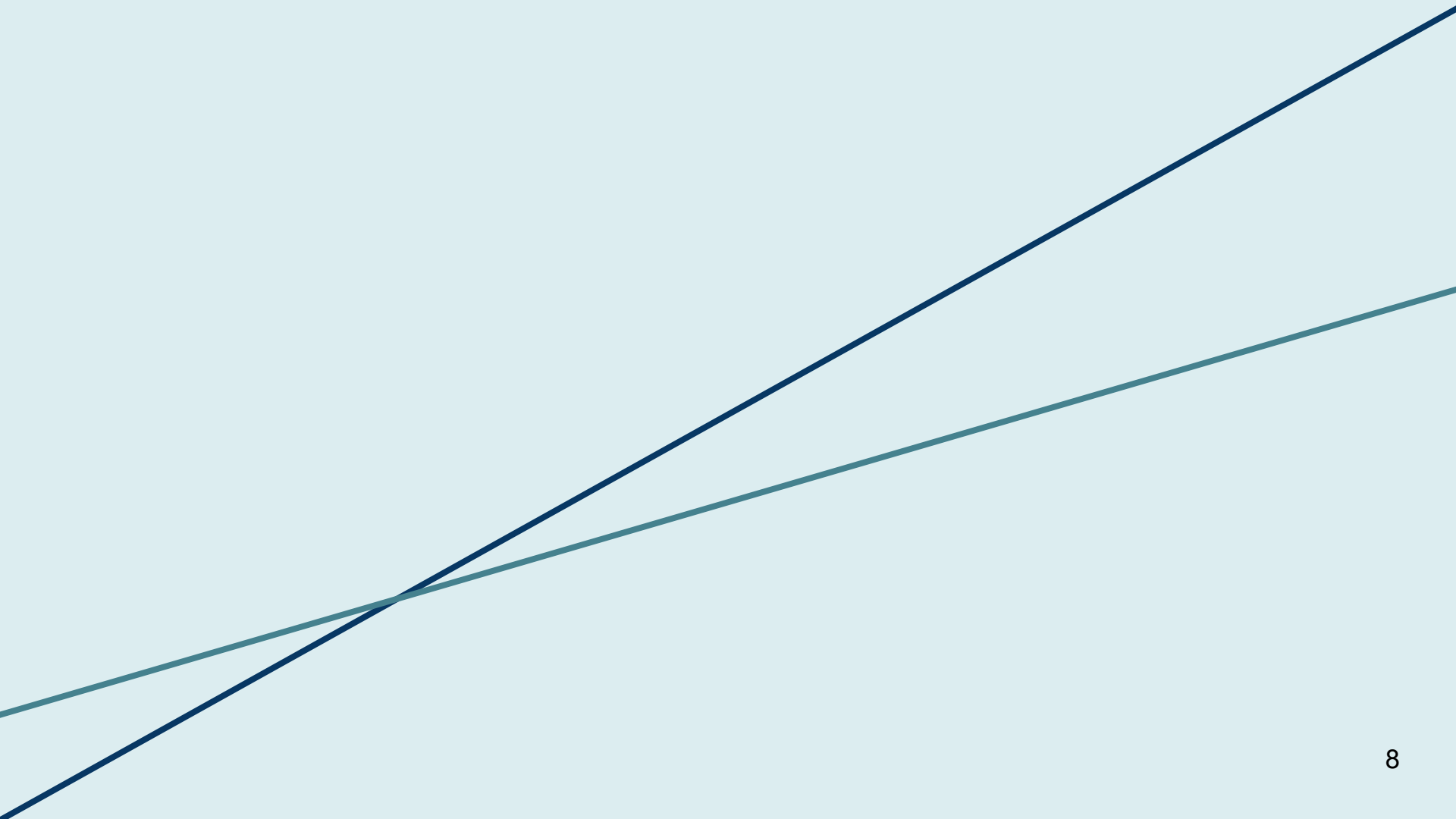
Retail Networks: Cash Digitization

- Modern retail networks supporting electronic fare collection solutions are typically deployed to **provide a convenient location** at which customers can add value or buy products and put them on their card or mobile app.

- This reloading capability can help improve access for customers without a credit/debit card or those without internet access.

- Some retail networks are either exclusively or primarily for "**cash digitization**" → to help cash paying customers get cash into the electronic fare collection system. The customer can then use this value directly or use it to purchase a pass.

- **Many vendors now offer access** to an established cash digitization partner as part of their services, providing the transit agency with potentially hundreds of local retailers without a separate contract or store recruitment process.

- GPR (General Purpose Reloadable) cards/apps can be loaded with cash at multiple locations and used as cEMV (e.g. JTA and Cash App).

Retail Networks: Card Distribution

- Some retail networks also support smart card distribution, frequently via the gift card or "J-hook" model.

- Convenient access to smart cards can be important for addressing the needs of customers without smartphones.

- Smart card distribution is typically a problem at system launch, but the need for a large footprint of distributors diminishes with time and increased take up of mobile app.

- While most card distribution networks also offer reload capabilities, card distribution networks typically need to be procured separately from the fare system and tend to be more costly to procure and maintain than pure reload networks.

- Card distribution networks are typically only available to large regional systems (e.g., Seattle, New York, San Diego). Some smaller agencies that have tried to procure card distribution networks recently have been unable to do so due to shifting market trends and their size

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Retail Networks: Trends

- Historical retail networks for electronic fare collection systems required participating retailers to use a fare system specific piece of hardware (San Francisco, Seattle).

- New retail networks for transit leverage their existing POS systems and do not require any speciality hardware. They may (Portland) or may not (Dayton) support card distribution.

- Larger metros and older fare systems (Jacksonville) tend to favor card distribution retail networks. **Smaller metros and newer fare systems (Columbus) embracing a "mobile-first" approach tend to favor reload only retail networks.**

- Reload only retail networks can generally only reload value to customer accounts that can be used to pay as you go or to purchase passes (uncommon to purchase passes directly)

- Many card distribution retail networks have similarly embraced a reload only trend (Seattle); customers cannot directly buy pass products at the retailer, but load value that they can then apply to purchasing a pass

Vanilla Direct
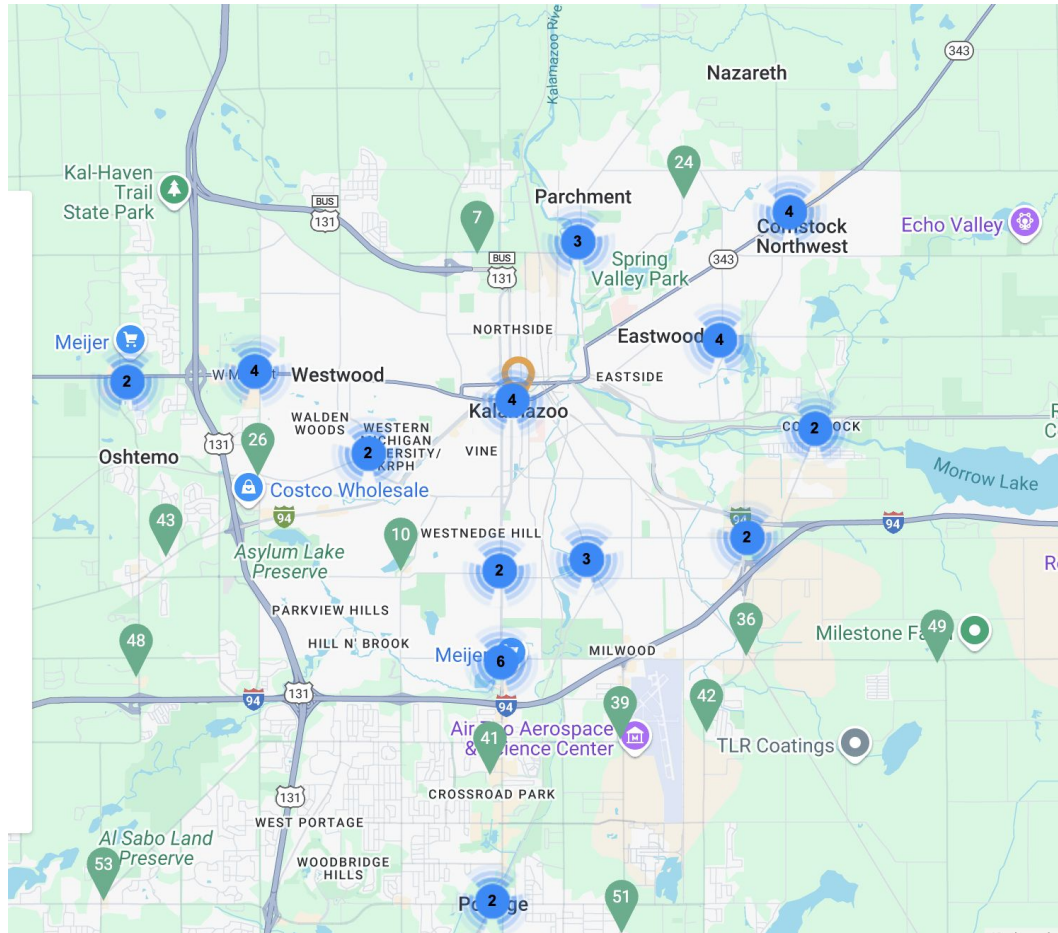
- The most common cash digitization provider is [Vanilla Direct by InComm](#)

- Vanilla Direct boasts 75+ locations in the Kalamazoo area

- 100% of a customer's funds go to their transit account - no fees or taxes

- Some outlets may also accept credit/debit cards in addition to cash

- The transit agency may pay a small fee for reloads occurring at these outlets (~3%)

Transfers
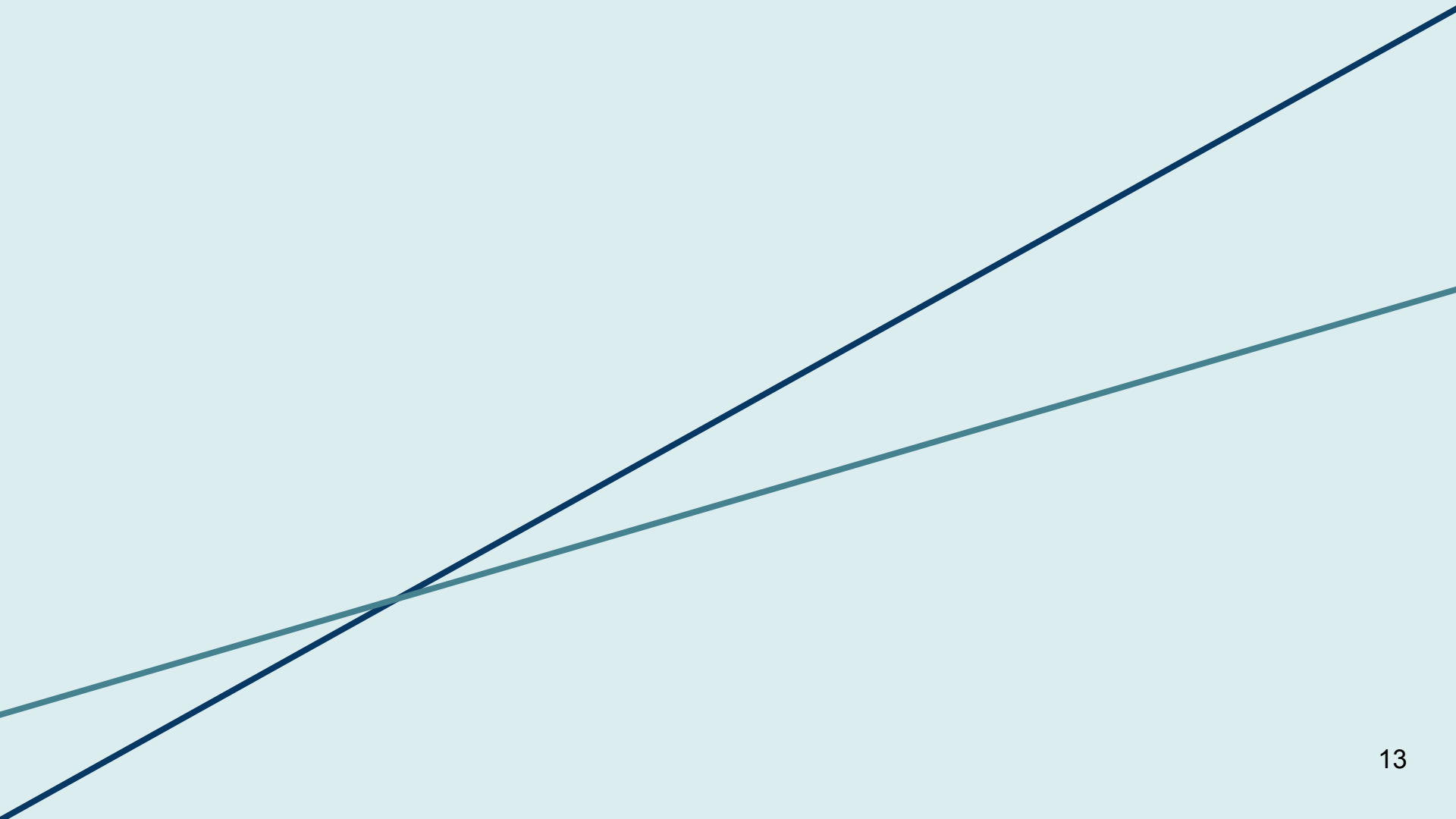
Transfers: Trends

- Agencies are shifting from offering transfers bounded by # of uses to transfers bounded by time e.g., unlimited boardings within an hour of payment

- This is generally easier to communicate to customers ("a one hour pass") and does away with hard to enforce and communicate restrictions on re-boarding the same route or making a return trip in the opposite direction

- Many agencies are also shifting away from offering transfers to cash paying customers. This helps:

  - Incentivize customers to move to electronic payment methods

  - Decrease the use of the farebox, potentially extending its useful life and/or allowing it to be replaced with a much simpler farebox in the future

  - Reduce ticket acquisition and printing costs, farebox maintenance costs, and trash

Examples Include

- Flint MTA (MI)
- Grand Rapids ITP (MI)
- WMATA (DC)
- County Connection (CA)

- Yuba-Sutter Transit (CA)
- Pierce Transit (WA)
- Pittsburgh Regional Transit (PA)
- Greater Dayton RTA (OH)

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How to Achieve Electronic Only?

- Given the high usage of transfers and CCTA's network, retaining transfers is desirable

- Guiding principles:

  - Offer customers attractive and accessible electronic fare alternatives to encourage customers to transition to new fare system and thereby reducing issuance of paper transfers & skipping issuance of paper day passes

  - Make the transition away from paper transfers as smooth for customers as possible to reduce disruptions to customers

- Electronic transfers only requires an electronic fare system with fare media options that are accessible for all customers e.g. easy to obtain and reload fare media

- Steps:

  1. Procure new fare collection solution

  2. Explore additional reload options

  3. Consider policies to support uptake

  4. Market new system

  5. Discontinue paper transfers

How to Get There

Phase 1:
- Lower Monthly Pass Price
- Eliminate 9 Day Pass
- Expand Youth Definition

Phase 1 requires no new technology and may incentivize shift away from single ride & transfer usage

Phase 2:
- Introduce Day Pass (Electronic Only)
- Introduce Day and Monthly Discounts (Electronic Only)

Between Phases 1 and 2, procure & install new fare technology

The Day Pass and discounts on the Day and Monthly Passes would require CCTA to manage addtl physical fare media and thus should wait for an electronic solution

Phase 3:
- Stop Selling New Tokens
- Stop Selling Legacy Monthly Passes
- Stop Selling/Revaluing Legacy Stored Value Cards

Eliminating paper transfers could occur earlier in Phase 2 or 3. Waiting for Phase 3 or 4 gives customers more time to naturally shift away from their usage

Phase 4:
- Stop Accepting Legacy Fare Media
- Support Trade-Ins of Legacy Fare Media
- Eliminate Paper Transfers

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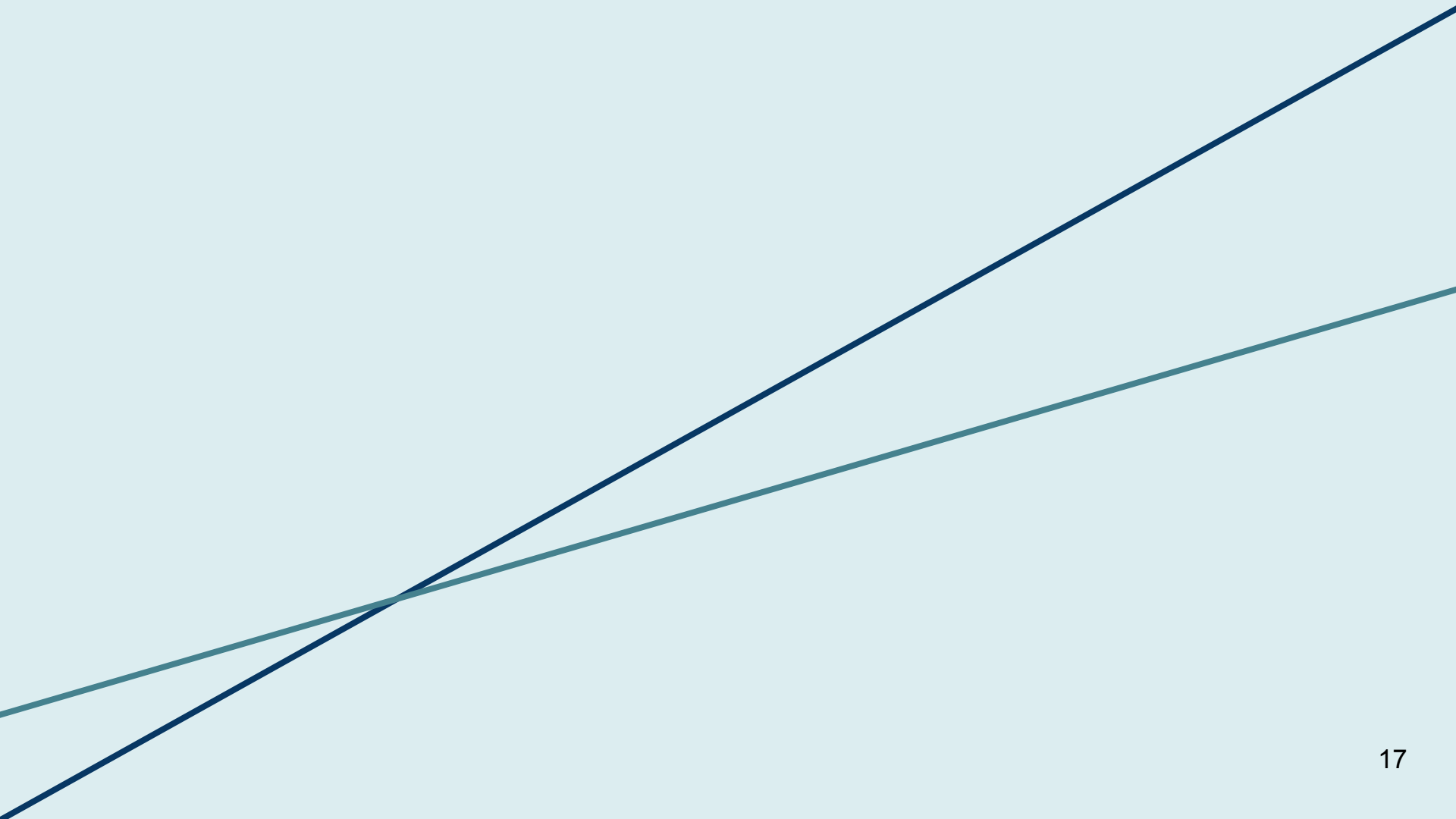
Next Steps

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- Determine final preferred fixed route option

- Revisit microtransit fares

- Explore implementation approaches