

The Future of Metro Transit Department's Fare Collection System

March 25, 2022



King County

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I. Proviso Text

Ordinance 19210¹, Section 113, Transit, P4

Of this appropriation, \$1,000,000 shall not be expended or encumbered until Metro transit department transmits a report on the future of Metro transit department's fare collection system and a motion that should acknowledge receipt of the report and a motion acknowledging the report is passed by the council. The motion should reference the subject matter, the proviso's ordinance number, ordinance section and proviso number in both the title and body of the motion.

The report shall include, but not be limited to, the following:

- A. A description of Metro transit department's current fare collection system, including the condition of Metro transit department's fare boxes, and identification of fare collection system components in need of replacement and rationale for proposing changes to the current fare collection system;
- B. An equity impact review, including identification of communities that could be disproportionately adversely impacted by the transition to a contactless fare system and therefore should be priority populations in the design of a contactless fare collection system;
- C. A summary of the community engagement process, conducted by the Metro transit department and cocreated by stakeholders identified as representing priority populations, including fare collection system alternatives considered in the community engagement process and recommendations made by priority populations;
- D. Options and cost estimates for potential fare collection alternatives, including continuing current fare collection methods and replacing fare boxes on buses;
- E. An identification of potential cost savings from each fare collection option, including transitioning to contactless fare collection, and how those savings could be reinvested in improving the accessibility or affordability of fares for priority populations; and
- F. Discussion of policy changes necessary to implement the identified options for potential fare collection alternatives.

The executive should file electronically the report and motion required by this proviso no later than March 25, 2022, with the clerk of the council, who shall retain an electronic copy and provide an electronic copy to all councilmembers, the council chief of staff and the lead staff for the mobility and environment committee, or its successor.

¹ [Ordinance 19210](#)

II. Executive Summary

Metro Connects, Metro’s long-range plan, envisions a future “system without cash payment on-board buses, paper tickets, and paper transfers.”² This report responds to a proviso adopted in Ordinance 19210, Section 133, Transit, P4, which directs Metro to analyze the future of its fare collection system with an emphasis on the potential impacts to priority populations of a transition to a cashless on-board fare payment system.³ The proviso directs Metro to conduct a stakeholder engagement process to analyze and recommend potential fare collection alternatives and identify opportunities to invest any future financial savings from those alternatives in improving the accessibility or affordability of fares for priority populations.

Background

King County Metro (Metro) is the Puget Sound region's largest public transportation agency, with over 123 million riders in 2019.⁴ Metro is committed to providing safe, equitable, and sustainable mobility and prioritizing service where needs are greatest. Metro sees mobility as a human right that allows communities and individuals to access the opportunities needed to thrive. As a public agency, it is Metro’s duty to assure its mobility services support livable communities, a thriving economy, and a sustainable environment. Safety and responsible financial stewardship remain core priorities for Metro.

Metro is guided by several transit specific planning and policy guidelines, along with King County Code (KCC) and state and federal statutes regarding transportation services, including [Metro Connects](#), the [Strategic Plan for Public Transportation](#), and the [Mobility Framework](#). In addition, [King County’s Equity and Social Justice Strategic Plan](#) provides guidance and direction on prioritizing equity within King County departments.

Metro is committed to advancing equity through an income-based approach to fares that prioritizes discounts for those with demonstrated income need. Metro offers reduced fares for people with financial need through the ORCA LIFT program. Youth, seniors, and people with disabilities also pay a reduced fare. Targeting fare discounts to riders in financial need allows Metro to continue to provide frequent and reliable service throughout the county.

Metro prioritizes building a “regional, innovative, and integrated mobility network that is safe, equitable, and sustainable.”⁵ In support of this goal, Metro’s Strategic Plan notes that Metro’s fares should align and ensure coordination with regional service providers.⁶

Metro’s Fare Collection System

Fares represent a crucial source of revenue for Metro. Pursuant to the County Council-adopted Fund Management Policies for Public Transportation,⁷ Metro must recover at least 25 percent of passenger related operating costs from farebox revenues for bus and Water Taxi service, with a target of 30

² [Metro Connects](#), 49

³ Metro’s [Mobility Framework](#) defines priority populations as “Black, indigenous and people of color, low- and no-income people, immigrants and refugees, limited-English speaking populations, and people with disabilities.”

⁴ [Metro Annual Ridership Data](#)

⁵ [Metro Strategic Plan](#), 11

⁶ *Ibid*, 71

⁷ [Ordinance 18321](#)

percent.⁸ Fares represent Metro’s second-largest source of revenue. In 2019, prior to the COVID-19 pandemic, Metro received over \$164 million in fare revenue, which was approximately 15 percent of total revenues. Nearly two-thirds of this fare revenue was collected through the ORCA Business Passport and ORCA Business Choice employer programs. In addition to fare revenue, Metro’s budget relies on sales tax and federal and state grants as well as payments from partner agencies for specific Metro services.

While Metro’s fare collection system features a variety of fare media, each year more than 90 percent of fare revenue is paid with ORCA or cash.⁹

By 2019, prior to the COVID-19 pandemic, the fare revenue that Metro received from cash on-board had declined by 40 percent (\$31 million to \$19 million) over the preceding six years, while the share of total fare revenue represented by cash declined from 22 percent to 11 percent. The proportion of Rider/Non-Rider survey¹⁰ respondents who reported using cash on a regular basis had fallen from 32 percent in 2013 to 11 percent in 2019. In 2021, the proportion of total fare revenue paid in cash rose to 18 percent and the proportion of Rider/Non-Rider survey respondents who reported using cash on a regular basis rose to 17 percent.

In 2022, implementation of a new ORCA system (also called Next Generation) will begin, bringing new benefits for riders. Such benefits will include instant loading of card value, an expanded retail network, allowance for negative balances, and a new mobile application. However, from a cash payment perspective, all of Metro’s cash fareboxes and the receiver vaults at each bus base have exceeded their useful life. GenFare, the manufacturer of the CENTSaBILL farebox in use on Metro buses, has discontinued production of the model. Over the past twenty-five years, Metro has successfully maintained use of the CENTSaBILL farebox by refurbishing and rebuilding them. The only component of Metro’s current farebox refurbishment practice at risk is the continued production, availability, and storage of rubber parts that wear down with use. Supply of these “wearable parts” is not in jeopardy but their manufacturer is not under contract—meaning that their production could cease or be subject to supply chain-related issues at any time.

Equity Context

Metro utilized the King County Equity Impact Review (EIR) tool as a framework to identify communities that could be disproportionately adversely impacted by the transition to a contactless fare system. These include ORCA LIFT-eligible riders (at or below 200 percent of the federal poverty level), riders of color, riders from households where English is not the primary language spoken, and riders with disabilities. These riders are more likely to rely on transit for their transportation needs and more likely

⁸ This policy was suspended for the 2021-22 biennium in response to the COVID-19 pandemic ([Ordinance 19206](#))

⁹ The remainder is primarily paid through the Transit GO Ticket mobile ticket application.

¹⁰ The purpose of Metro’s Rider/Non-Rider survey is to gauge riders’ satisfaction with various elements of bus services, gain insight into residents’ perceptions of Metro perceptions during the pandemic, understand ridership barriers and potential transit interest among lapsed riders, and identify demographic and geographic characteristics of riders and non-riders. The survey is offered in English, traditional Chinese, Spanish, Vietnamese, and Somali languages. Responses are weighted by key demographics to reflect the most recent Census American Community Survey estimates for residential households in the King County Metro service area.

to use cash than riders overall, making them particularly vulnerable to a future transition to a cashless on-board fare collection system.¹¹

By utilizing Rider/Non-Rider survey data, feedback received from the Stakeholder Advisory Group convened to inform this proviso, and in-depth interviews with riders who pay cash, Metro gained a deeper understanding of the barriers that riders who pay cash face using ORCA and their concerns about a fare payment system that does not accept cash on-board. Metro consistently heard the following themes:

- Concern that the loss of a cash on-board option will be overly burdensome on priority population riders.
- Priority population riders face a variety of technological, financial, and language barriers to accessing the fare system.
- The fare system, including how to buy, use, reload, and replace ORCA cards, as well as the scope and eligibility criteria for reduced fare programs, can be difficult to understand.
- ORCA card fees can be prohibitive.

Based on feedback from stakeholder engagement, rider research, and surveys, any potential future transition to a cashless on-board fare payment system needs to not only examine and solve for impacts to those most affected by a policy change, but also to look beyond the cash question. Metro and other regional transit providers must examine how to make the fare system more equitable, accessible, and affordable; this can only be accomplished by collaborating with community stakeholders, particularly those who face the most significant barriers to using the ORCA system.

Engagement

Metro is committed to amplifying the voices of historically underserved communities, including those affected by racism, bias, poverty, language diversity, disability, and/or immigration status. For the community engagement process associated with this proviso, Metro convened a Stakeholder Advisory Group made up of representatives from 24 Community Based Organizations (CBOs) that provide direct services, with a particular focus on those that are led by and for BIPOC, immigrants and refugees, linguistically diverse people, people with low and/or no-incomes, and/or people with disabilities. Additionally, Metro met with the Access Paratransit Advisory Committee, Transit Advisory Committee, Metro Equity Cabinet, and three local transportation advocacy organizations – Transportation Choices Coalition, Transit Riders Union, and Seattle/King County Coalition on Homelessness – to gain more perspective on the experience of riders who pay cash and learn how Metro could make non-cash fare payment and collection options more accessible for all riders.

The role of the Stakeholder Advisory Group was to analyze and recommend alternatives to current fare collection methods – focusing on alternatives to cash fare payment on-board while including consideration of potential impacts to equity, both positive and negative. The Stakeholder Advisory Group, which met virtually three times between September and October 2021, provided valuable perspectives about the financial, technological, and cultural barriers their clients face in using public transportation and Metro’s fare system, as well as feedback on the fare collection system alternatives presented by Metro staff.

¹¹ Rider/Non-Rider survey

Fare Collection Alternatives

Metro developed four alternatives to on-board cash fare payment after researching peer agencies' fare media options, reviewing best practices, and consulting with experts both within Metro and beyond. Metro presented each alternative, described below, to the Advisory Group, which spent time discussing the benefits and drawbacks from the perspective of their priority population clients.

- **Expanded retail network with focus on social and human service agencies.** The Stakeholder Advisory Group recommended that the ORCA retail network include sites where priority population riders already access services such as human service or social service agencies. They also suggested including small and local community stores located where those populations live and ride transit and where store clerks may speak the same language.
- **Wearable and sticker-based fare media.** The Stakeholder Advisory Group noted that “wearables” – wristbands, rings, or keychains that function just like a standard ORCA card – could be an effective solution for unhoused riders who often have difficulty keeping an ORCA card, for riders with disabilities for whom payment with a card is difficult, or for youth or other riders for whom cards are less practical. An RFID-enabled sticker that can be added to any surface, including a government issued identification or benefit card, could provide similar benefits.
- **Limited-use tickets.** Stakeholders recommended that RFID-enabled paper tickets be available at all retail locations and vending machines and that multi-ride or multi-day options be made available. Paper tickets would provide a lower-cost option to riders for whom the ORCA card fee is prohibitively expensive.
- **More vending machines.** The Stakeholder Advisory Group recommended locating vending machines in more culturally relevant places, such as ethnic grocery and convenience stores or at community-based organizations. Given consideration of the purchase, siting, and maintenance costs associated with vending machines, the Stakeholder Advisory Group was less enthusiastic about this option as compared to expansion of the retail network.

In keeping with Metro's commitment to taking a regional approach to fare systems, future development of any of these options would occur in collaboration with ORCA network partners and prioritize interoperability between agencies. Additionally, the launch of the new ORCA system will present new functionalities that Metro and its partners can build on to improve the accessibility and affordability of the OCRA payment system. Ongoing rider engagement will also continue to be a key input into the design of these and other fare media.

Investments Improving the Accessibility or Affordability of Fares for Priority Populations

Metro has developed a suite of investment opportunities which take varied approaches toward improving the accessibility and affordability of fares for priority populations. Each investment is responsive to a need or barrier identified through the engagement process. Some strengthen program infrastructure that will simplify the enrollment process for priority populations, while others adjust fare policy or modernize existing reduced fare programs. All were developed to lower barriers, enabling

priority populations to take full advantage of the fare system. Some of these changes and investments require the approval of regional boards or other agencies, while King County can implement others independently. Given Metro's goal to secure regionally adopted fare products and services, implementation of any of the investment options would include communication, coordination, funding, and potential policy or code changes.

Next Steps

Metro recognizes that a future transition to a cashless on-board fare collection system would have significant impacts to members of its rider community. Metro commits to continue working with riders who pay cash and priority populations who would be disproportionately affected by the loss of a cash on-board option. In partnership with community, Metro will pursue incentives, investments, and policy changes that make it easier for all riders maximize the financial, mobility, and convenience benefits of using transit.

The transmittal of this report coincides with ongoing regional conversations about fare enforcement, affordability, and structure, as well as the launch of the region's new ORCA system. While this report focuses specifically on Metro's fare collection system, Improving the equity, affordability, and accessibility of fares is part of ongoing regional discussions about rebuilding ridership, investing where needs are greatest, and prioritizing a seamless regional fare payment system for all riders. Using the community engagement conducted for this proviso report as a foundation, Metro will continue working to respond to concerns and address identified by stakeholders, riders who pay cash, and priority populations.

III. Background

The following subsections should be included to provide context for the information, findings, and recommendations included in the body of the report.

Department Overview

Founded in 1973, King County Metro (Metro) is one of the nation's ten largest transit agencies, the largest public transportation agency in the Puget Sound region, in 2019 provided more than 130 million rides through a variety of mobility options, including: fixed route services (bus, rail, streetcar, and water taxi), contracted services (Dial-A-Ride Transit and Access Paratransit), and shared and connected services (Vanpool, Vanshare, Rideshare, and Community Access Transportation). Metro was recognized as the number one transit agency in North America in 2018 by the American Public Transportation Association.

Key Context

This section provides key historical and current context for the contents of this report.

Guiding Policies and Plans - Metro is guided by several transit specific planning and policy guidelines, along with King County Code (KCC) and state and federal statutes regarding transportation services. In addition, King County's Equity and Social Justice Strategic Plan provides guidance and direction on prioritizing equity within King County departments. The following key policy documents describe how Metro operates and adapts an evolving transportation system in equitable and sustainable ways.

- [Metro Connects](#) – As Metro's long-range service and capital vision, Metro Connects describes how Metro will work toward a regional, innovative, and integrated mobility network that is safe, equitable, and sustainable. This system will support healthy communities, a thriving economy, and a sustainable environment. Over the course of 18 months, Metro embarked on a robust outreach process to update this vision that gathered input from a broad range of people and stakeholders throughout King County, including the public, transit-dependent, and traditionally underserved people, cities, and regional transportation partners.
- [Strategic Plan for Public Transportation 2021-2031](#) – This plan directs Metro to work toward its mission and vision. The Strategic Plan was developed in the context of specific opportunities and challenges facing King County residents. The Strategic Plan established ten goals, along with objectives, outcomes, and strategies to achieve them and measures to track progress. Metro's Strategic Plan reflects the recommendations of several advisory groups including the Equity Cabinet and the Regional Transit Task Force.
- [Mobility Framework](#) – This report sets a vision for a regional network of traditional and new transportation services that gets people where they want to go, when they want to get there, while contributing to healthy communities, a thriving economy, and a sustainable environment. In 2019 Metro convened the Mobility Equity Cabinet—a group of leaders from historically underserved and underrepresented communities including, but not limited to, low-income populations, Black Indigenous and people of color communities, immigrants and refugees, limited English-speaking

populations, and people with disabilities. Metro met regularly with the Equity Cabinet to co-create a set of guiding principles and recommendations for centering equity and sustainability in our policies. Metro gathered input from transit riders and the public, especially from priority populations, regional partners, stakeholders, elected officials, and employees throughout the process.

- [Equity and Social Justice Strategic Plan](#) – In addition to the transit-specific plans outlined above, Metro also gets direction and guidance from the King County Equity and Social Justice Strategic Plan. The Plan provides a [framework](#) for, and [direction](#) to, all County agencies and departments for how to prioritize and integrate equity, racial, and social justice approaches, strategies, goals, and outcomes for all aspects of governance, including in foundational areas such as community engagement, employee engagement, service delivery and resource prioritization, and transparency and accountability. Specifically, the Plan sets expectations for all county agencies to apply the following pro-equity and anti-racist concepts of the Equity and Social Justice theory of change to create transformational change in King County government:
 - Applying targeted universalism, which means defining outcomes for all, identifying barriers faced by specific groups, and partnering with them to define sustainable solutions
 - Leading with racial justice and dismantling systems of oppression
 - Investing upstream to address root causes, and in people and places where needs are greatest
 - Investing in community partnerships and employees
 - Employing transparent and accountable leadership

Foundational Framing – The items below are summaries of key elements and initiatives that provide foundational framing for the work described in this report.

[Racism as a Public Health Crisis](#) - The murder of George Floyd and the ensuing national debate about the effects of centuries of systemic racism brought heightened attention to the need for King County to realign its programs to meet the needs of Black, Indigenous, and other people of color (BIPOC) communities, with a particular focus on Black and Indigenous communities who are most impacted by systemic racism. Metro resolved to strengthen its work to look at how Metro’s policies and practices perpetuate disproportionate negative impacts and inequities largely resulting from systemic racism. The 2020 global racial justice protests of summer 2020 demanded improvements to law enforcement policies and practices that perpetuate disparities based on race. Metro and King County continue to grapple with policies and practices that perpetuate disparities based on race.

In June 2020 the King County Executive declared that racism is a public health crisis (RPHC), with King County committing to being intentionally anti-racist and accountable to BIPOC communities. Also in June 2020, Metro’s Strategic Leadership Team issued a statement on a "Time for Action," asking employees to "speak up and act to tear down oppression and systemic racism of Black, Indigenous, and all people of color" and "adapt and meet the needs of the community" among other charges.¹² These statements directly responded to a call from the community for more anti-racist organizational changes and a commitment from the county and Metro to becoming an anti-racist and pro-equity organization.

In support of this goal, Metro became an active participant in the Executive's RPHC team focusing on dismantling systems of oppression.

Beyond considering equity in its practices and policies, Metro recognizes that it needs to do more to be an anti-racist mobility agency. To accomplish this, equity must be at the heart of the organization, embedding equity in Metro's practices and policies along with a permanent shift in county policies and operations so BIPOC can thrive in King County.

Metro Connects,¹³ Metro's adopted long-range plan, directs the agency to "move toward a system without cash payment on-board buses, paper tickets, and paper transfers."¹⁴ Metro Connects notes that the use of cash makes boarding slower and decreases service speed and reliability for customers. It also elevates the risk of fare disputes contributing to safety concerns for riders and operators and adds to Metro's operating costs.

As outlined in Metro Connects, Metro prioritizes building a "regional, innovative, and integrated mobility network that is safe, equitable, and sustainable."¹⁵ In support of this goal, Metro's Strategic Plan notes that Metro's fares should align and prioritize coordination with regional service providers to ensure a seamless inter-agency fare payment system for riders.¹⁶

Fares are Metro's second-largest source of revenue, following sales tax. Pursuant to the County Council-adopted Fund Management Policies for Public Transportation¹⁷, Metro must recover at least 25 percent of passenger-related operating costs from farebox revenues for bus and Water Taxi service, with a target of recovering 30 percent.¹⁸ In 2019, prior to the COVID-19 pandemic, Metro received over \$164 million in fare revenue. In addition to sales tax and fare revenue, Metro's budget primarily relies on federal and state grants as well as payments from partner agencies for specific Metro services.

Between 2017 and 2022, Metro transmitted four reports to the King County Council related to increasing the affordability and accessibility of transit.¹⁹ These reports provided key background information that informed the development of this report – particularly the investment options outlined in Section E. In addition to this proviso, Metro will continue to draw on these reports to inform future decisions about fare structure, policy, and investments.

The transmittal of this report coincides with ongoing regional conversations about fare enforcement, affordability, and structure, as well as the launch of the region's new ORCA system. While this report focuses specifically on Metro's fare collection system, future decisions about fares and fare collection will be made in a broader context that centers the customer and advances equitable access, affordability, and regional interoperability.

¹³ [Ordinance 19367](#)

¹⁴ [Metro Connects](#), 49

¹⁵ *Ibid*, 11

¹⁶ [Metro Strategic Plan](#), 71

¹⁷ [Ordinance 18321](#)

¹⁸ This policy was suspended for the 2021-22 biennium in response to the COVID-19 pandemic ([Ordinance 19206](#))

¹⁹ A full list of recent Metro reports related to fares is included in Appendix D to this report.

Methodology

The Fare Policy team within Metro’s Mobility Division’s Market Innovation Section facilitated the development of this report in collaboration with staff from:

- Mobility Division’s Market Innovation and Customer Communications & Services Sections
- The General Manager’s Office’s Strategic Communications & Engagement Section
- The Bus Operations Division
- The Vehicle Maintenance Division; and
- The Capital Division’s Capital Planning and Portfolio Management Section.

Regular meetings were also held with representatives from the Office of Performance, Strategy, and Budget and the Office of Equity and Social Justice to provide ongoing feedback, guidance, and review on the development of this report.

To support the development of this proviso report and meet the requirement in Section C of this proviso, Metro convened an advisory group of diverse representatives from community-based organizations that serve populations that could experience disproportionately adverse impacts if cash is no longer accepted on board the bus. Stakeholder Advisory Group members represented organizations focused on community health, domestic violence prevention, HIV+ direct services, LGBTQ+ health and advocacy, refugee and immigrant services, behavioral health and treatment, and housing and direct services for individuals with no or low income. The Advisory Group met virtually three times in the fall of 2021 and provided key insights about priority population experiences with Metro’s fare system and with barriers to use of the ORCA system.

Stakeholder Advisory Group members included:

- Alliance of People with disAbilities
- API Chaya
- Asian Counseling and Referral Service
- Byrd Barr Place
- Catholic Community Services
- Chief Seattle Club
- Elizabeth Gregory Home
- Entre Hermanos
- Eritrean Association in Greater Seattle
- Evergreen Services' REACH Program
- International Rescue Committee
- Issaquah Food & Clothing Bank
- Lifelong
- Low Income Housing Institute
- Millionaire Club Inc. DBA Uplift Northwest
- POCAAN
- Real Change
- Recovery Café
- Refugee Women's Alliance
- Sea Mar Community Health Centers
- Teen Feed Service Links for Youth
- University District Food Bank
- Washington State Department of Social and Health Services
- Weld Seattle

More information about the engagement process is included in Section C of this proviso and in Appendix A.

Metro also engaged with the Access Paratransit Advisory Committee,²⁰ the Transit Advisory Commission,²¹ the Equity Cabinet,²² and three transit-focused advocacy organizations²³ to understand their concerns about a cashless on-board fare collection system and the experiences of priority population riders as well as to receive feedback on proposed fare collection alternatives.

Metro drew on numerous sources to inform this report, including:

- The Rider/Non-Rider survey
- Prior Metro reports related to the fare system
- Academic studies related to fares and fare payment
- ORCA Joint Board reports

Metro staff wrote this report.

IV. Report Requirements

These subsections are organized to align with the sections of the Proviso.

A. A description of Metro transit department's current fare collection system, including the condition of Metro transit department's fare boxes, and identification of fare collection system components in need of replacement and rationale for proposing changes to the current fare collection system

This section outlines the methods by which Metro collects fares from individuals for its transit services. Following the summary tables about all fare collection methods and revenue is a description of each type of fare media and an identification of components of that media that need replacement.

For this report, the term “fare collection system” includes cash and fare media accepted to pay for a ride on Metro’s services, including bus, paratransit, water taxi, and on-demand services such as Via to Transit. The term also includes the methods by which value can be added to fare media and by which an individual fare is collected to pay for a ride on Metro transit services.

Vanpool and Vanshare services are used by businesses that provide transit options for employees. These options are not included in the fare collection system analysis because these Metro transit services do not require individual fare payment prior to or upon boarding. These options are priced and provided on a contract basis for groups of people and employees of contracted businesses. Because payment for these transit services is not dependent on a farebox or other fare collection system components as called for in the Proviso, they are not included in this report.

The following three tables summarize Metro’s fare collection system and the amount of fare revenue received from different forms of fare media.

²⁰ [Access Paratransit Advisory Committee](#)

²¹ [Transit Advisory Commission](#)

²² [Metro Equity Cabinet](#)

²³ [Transportation Choices Coalition](#), [Transit Riders Union](#), and the [Seattle/King County Coalition on Homelessness](#).

Figure 1 - Metro's Fare Collection System

Fare Media	Methods to Buy Fares or Add Value	Method of Fare Payment	Metro Services Where Media Are Accepted
<p>ORCA</p> <ul style="list-style-type: none"> • Includes reduced and subsidized fare cards 	<p>ORCA cards can be loaded with E-purse value – which functions like funds on a debit card – or passes such as a Puget Pass or Regional Day Pass at:</p> <ul style="list-style-type: none"> • Vending machines (cash, credit/debit card) • Orcacard.com (credit/debit card; value delayed 24-48 hrs) • Phone (credit/debit card; value delayed 24-48 hrs) • Mail (check, money order, credit/debit card; value delayed 24-48 hrs) • Metro Pass Sales Office (cash, credit/debit card, purchase or money order, E-purse) • Retail network (cash, credit/debit card, E-purse) • Neighborhood pop-up²⁴ (cash, credit/debit card, purchase or money orders, E-purse) 	<p><i>For Metro Bus, RapidRide, Water Taxi, and Community Ride</i>²⁵: Tap ORCA reader with card.</p> <p><i>For Via to Transit and Ride Pingo to Transit:</i> When requesting a ride on the Via or Ride Pingo application or on the phone, a rider will be asked to enter their ORCA card number. Upon boarding, a rider must also tap their ORCA card. Payment does not occur until the ORCA card is tapped on the reader in the vehicle.</p> <p><i>For Access Paratransit:</i> When an Access rider reserves a trip, the Access system will show whether the rider has an active Access monthly pass or PugetPass on their ORCA; if so, the rider can board without showing their ORCA card. The Access system does not currently support E-purse value.</p>	<ul style="list-style-type: none"> • Metro Bus, RapidRide, and DART • Water Taxi • Community Ride • Via to Transit²⁶ • Ride Pingo to Transit²⁷ • Access Paratransit

²⁴ [King County Metro Neighborhood Pop-Up](#) brings Metro information, ORCA card services, and more to customers throughout King County. Metro created a virtual version of the program during COVID; in-person services are scheduled to resume in 2022.

²⁵ [Community Ride](#) is an on-demand, point-to-point pilot service in Sammamish and the Juanita area.

²⁶ [Via to Transit](#) is a pilot, on-demand service that connects riders to and from transit and community hubs in Othello, Rainer Beach/Skyway, Renton Highlands, and Tukwila.

²⁷ [Ride Pingo to Transit](#) is a pilot, on-demand service that connects riders to and from Kent Station and the Kent Valley with any destination in the service area.

Fare Media	Methods to Buy Fares or Add Value	Method of Fare Payment	Metro Services Where Media Are Accepted
Cash	N/A	Feed cash into farebox or vault on board. No change is given.	<ul style="list-style-type: none"> • Metro Bus, RapidRide, and DART • Water Taxi • Community Ride • Ride Pingo to Transit • Access Paratransit
Paper Transfer	Distributed to riders paying cash fare or using paper ticket	Show to operator (transfer is valid for two hours after initial fare payment).	<ul style="list-style-type: none"> • Metro Bus, RapidRide, and DART • Community Ride • Ride Pingo to Transit
Transit GO Ticket	Single fares can be purchased on Transit GO Ticket through: <ul style="list-style-type: none"> • Electronic application (credit/debit card) • Retail network (cash) 	Activate ticket and show on smartphone to operator.	<ul style="list-style-type: none"> • Metro Bus, RapidRide, and DART • Water Taxi • Community Ride • Via to Transit • Access Paratransit • Ride Pingo to Transit
Paper Ticket <ul style="list-style-type: none"> • Human Service Bus Ticket • Free Ride Ticket • Water Taxi Ticket 	<ul style="list-style-type: none"> • Participating Human Services Bus Ticket Program agencies can purchase paper tickets at ten percent of face value, and distribute to their qualifying clients at no cost • Free Ride Tickets are provided on a promotional basis to riders by Metro and other organizations • Vending machine (Water Taxi only) 	Feed into farebox on board.	<ul style="list-style-type: none"> • Metro Bus, RapidRide, and DART (Human Service and Free Ride Tickets) • Access Paratransit (Human Service and Free Ride Tickets) • Water Taxi (Vending machine)

Fare Revenue Summaries

Figure 2 - Revenue by Fare Media

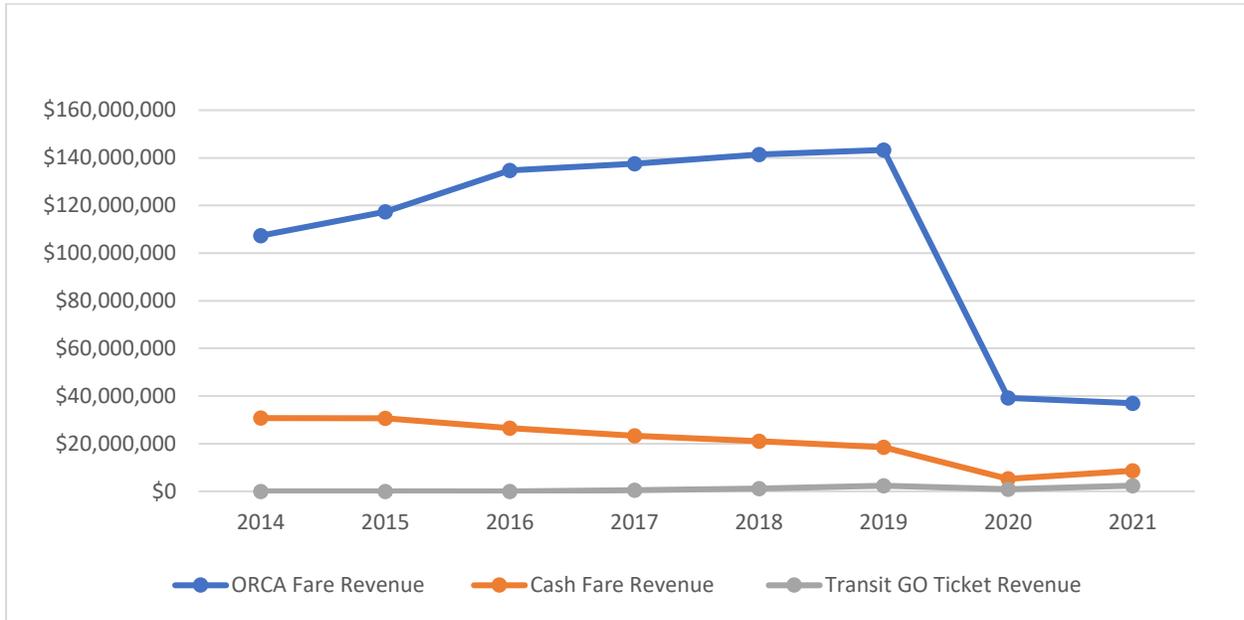
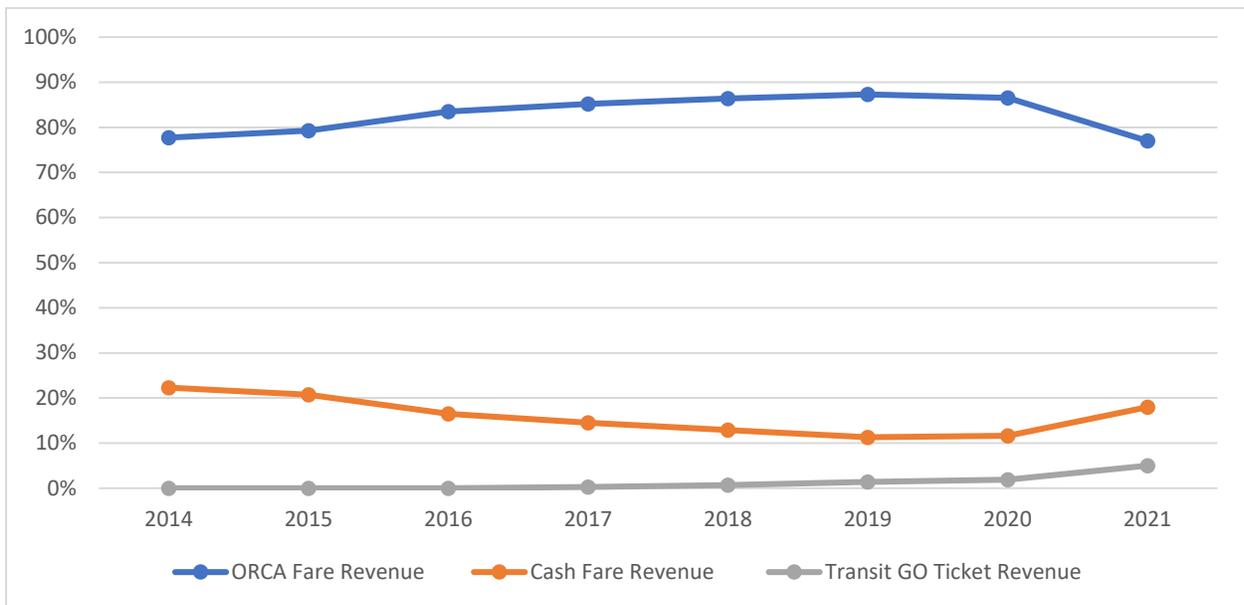


Figure 3 - Share of Total Revenue by Fare Media



Description of Fare Media and Fare Collection Methods

The subsections below describe the fare media and collection methods for ORCA, cash, paper transfers, Transit GO Ticket, and paper tickets.

ORCA Smart Card

ORCA (One Regional Card for All) is a contactless, Radio Frequency Identification (RFID) enabled smart card that transmits and tracks fare payments.

ORCA is accepted as a form of fare payment on Metro services, Sound Transit, Community Transit (Snohomish County), Pierce Transit, Kitsap Transit, Everett Transit, and the Washington State Ferry system. The ORCA Joint Board, created in 2003, serves as the governing and policy-setting body for the ORCA system. With limited exceptions, Joint Board decisions and actions require a unanimous vote of all agencies.

An ORCA card holds value in two ways.

1. **E-purse value** – Funds are added and used similarly to a debit card.
2. **Passes** – Passes (i.e., a PugetPass or Regional Day Pass) are loaded and provide unlimited rides on the seven participating transit agencies in the Central Puget Sound except for Washington State Ferries.

To pay fare for Metro bus service, an ORCA card is tapped on an ORCA reader located either near a bus's on-board farebox or located outside the coach in some locations. Metro is planning to implement all-door boarding across the system after launch of the new ORCA system, at which point ORCA readers will be available adjacent to any door of the bus. The ORCA system calculates the fare revenue due to each transit agency and then distributes it to the agency that provided service. When a rider uses ORCA to pay a fare that uses more than one transit agency, funds are apportioned 30 days later to each agency based on the percentage of the value of service provided.

ORCA serves as the fare media for the Subsidized Annual Pass,²⁸ LIFT (low-income fare), Youth, and Regional Reduced Fare Permit (RRFP) programs. A full list of ORCA card types, eligibility requirements, purchasing locations, and fees is included with this report as Appendix G.

Since its implementation in 2009, the technology that supports the ORCA system has changed substantially and many elements are out of date. The current ORCA system is card-based with each embedded RFID chip holding customer information and account balances. When values are added or modified to an ORCA card online or over the phone, the change must be downloaded to all ORCA card readers in the system and then to the physical card itself. The current process to update an ORCA card with the latest E-purse amount or pass purchased takes 24 to 48 hours. The delay creates challenges for riders who need to ensure value is available when they ride transit.

Implementation of the new ORCA system will begin in 2022. Unlike the current card-based ORCA system, new ORCA is an account-based system in which customer information and account balances will be held by a central ORCA processing network, rather than being stored on the card. Benefits of the new ORCA system include:

- Instant card data loading, replacing the current 24–48-hour data loading delay.

²⁸ Residents of King, Pierce, and Snohomish counties who are at or below 80% of the federal poverty level and are enrolled in one of six state benefit programs can obtain a Subsidized Annual Pass valid for travel on King County Metro and Sound Transit services.

- An increase in the number of retail network locations where customers can purchase and reload their ORCA cards from fewer than 100 to over 300, with the ability to further expand.
- A new ORCA [website](#) and a mobile app through which a rider can purchase fare, confirm card E-purse balances and products, and add value to an ORCA card.
- A new ORCA account-based system that allows negative balances; riders with insufficient balances will still be able to tap for payment with an ending balance as low as -\$2.75.
- The purchase of 15 additional full-service vending machines to augment the 77 existing machines located at Link light rail stations (and two operated by Metro at the King Street Center Pass Sales Office and the Burien Transit Center) to serve unmet customer service need.²⁹
- The ability to use a smart phone and the ORCA application to pay for a fare by tapping a smartphone onto the reader.³⁰

Cash

“Cash” refers to paper bills and coins. Cash is currently accepted on all Metro buses, the King County Water Taxi, Access Paratransit, DART, Community Ride, and Ride to Pingo.

Riders deposit cash fares into a farebox on board the bus to pay for a ride. Neither the farebox nor the bus operator provide change. Once the farebox has accepted a cash fare, the bus operator provides the rider a paper transfer, which is valid for at least two hours of additional rides on Metro buses.

Metro coaches use the CENTSaBILL model of electronic registering fareboxes manufactured between 1996 and 2011 by the GenFare company. The box is mounted on a platform at the front entrance of the coach to be within reach and eyesight of the driver. Boxes are wired for electricity and have glass windows and a digital display to inform the operator of how many coins have been deposited. The CENTSaBILL farebox registers when a paper bill has been accepted but cannot identify its denomination, so the digital display is often not accurate as to the amount of money that has been deposited.

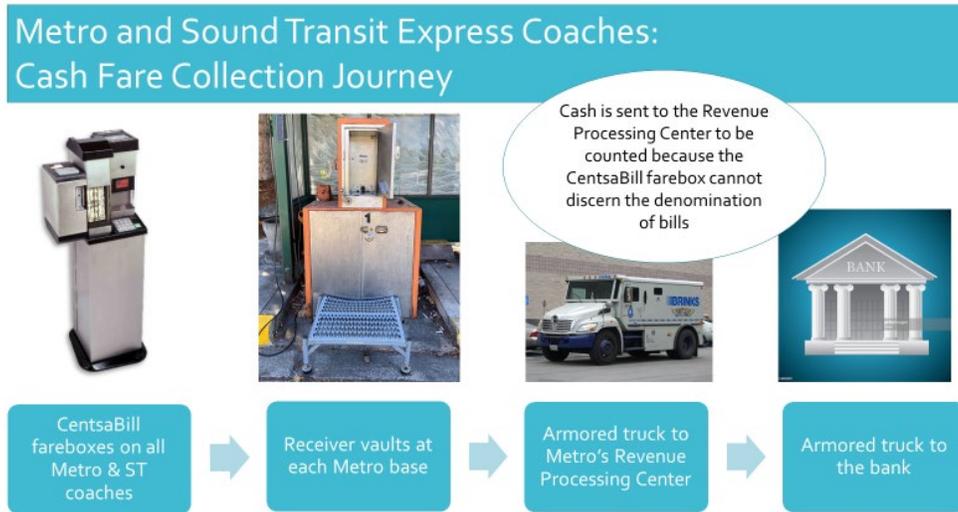
Once coins or bills are fed into the farebox, they fall into a removable cashbox at the bottom. The cashbox can only be released by an electronic key probe once the bus reaches the base. Once probed, equipment service workers remove the cashbox from the farebox and physically insert it into a larger receiving vault at the bus base. A private armored truck service retrieves the cash from the receiver vaults and delivers it to the Revenue Processing Center, where Metro maintains seven full time equivalent staff to count and process the cash. Once accounted for, the cash is retrieved again by a private armored truck service for delivery to the bank. In 2020, the total cost to operate the Revenue Processing Center, including wages and non-personnel expenses, was just over \$1 million.

Metro contracts with service providers to operate Access Paratransit, Community Ride, Ride Pingo, Community Transit, and DART services, which all accept cash for fare payment. These contracted service providers count and process cash fares that are credited to amounts paid for their service.

²⁹ Three of the 15 new machines are contractually required for the RapidRide G line center boarding platforms. Locations for the remaining machines were prioritized based on criteria including high transfer locations, unmet customer service need, ORCA LIFT eligibility by census block group, links to other agencies, and feedback from the Transit Advisory Commission.

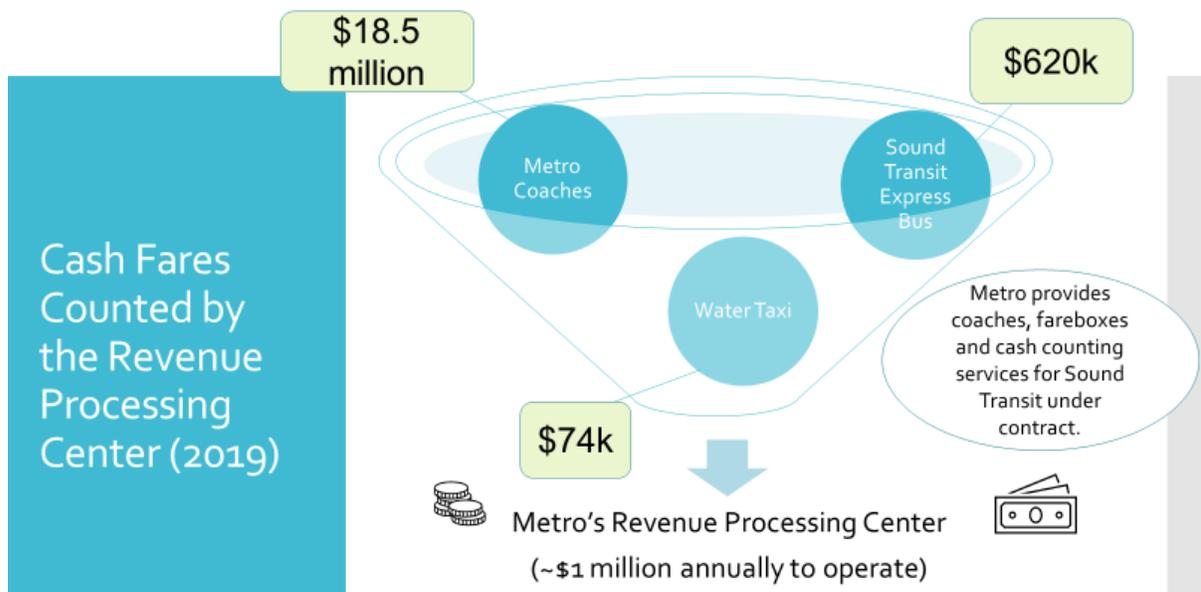
³⁰ This feature will not be available at the launch of new ORCA but is currently available by using Transit GO Ticket.

Figure 4 - Metro & Sound Transit Express Cash Fare Collection Journey



The fareboxes currently in use on Metro buses are at least 30 years old; every box has gone through either a complete refurbishment or major maintenance from the Vehicle Maintenance Division's Component Service Center. As of July 2021, 1,509 fareboxes are installed and in use on Metro's fleet. Depreciation reports from Metro's Capital and Facilities divisions indicate that these fareboxes and the receiver vaults have all fully depreciated, are of zero financial value, and have surpassed their designed lifespan.

Figure 5 - Cash Fares Counted by the Revenue Processing Center (2019)



Repair costs include frequent functionality complications and additional required maintenance caused by lint, pins, and other foreign objects unintentionally emptied into the farebox by riders who pay cash. These items must be manually removed before cash can be counted at the Revenue Processing Center. Repair occurs either in the field by a mobile mechanic or after the farebox is removed from the coach and transported to Metro’s Vehicle Maintenance Division.

Metro’s Vehicle Maintenance and its Component Supply Center have been primarily responsible for the maintenance and refurbishment of the CENTSaBILL fareboxes since their original installation. Analysis of repair and refurbishment expenditures over the last twenty years indicates that Metro currently spends close to \$2 million annually on labor and other costs to repair and refurbish CENTSaBILL fareboxes. Refurbishment involves highly technical machine parts and electronic work on the various components of the farebox. The Component Supply Center has amassed refurbished components, including the steel farebox casings, into its inventory as a strategy toward keeping fully functional CENTSaBILL fareboxes on each of Metro’s coaches in the fleet. The Component Supply Center reports that inventory of all spare farebox components, including the steel CENTSaBILL exteriors needed for refurbishment, are sufficient such that additional purchases are not currently necessary through the end of 2024.

The only component of Metro’s current farebox refurbishment practice at risk is the continued production, availability, and storage of rubber parts that wear down with use. Supply of these “wearable parts” is not currently in jeopardy, but Metro does not have a contract with any manufacturer to continue their production, meaning that their manufacture could cease or be subject to supply chain related issues at any time.

While Metro’s fareboxes are at the end of their useful life, the total amount of cash revenue from Metro services has declined substantially, from \$31 million in 2014 to less than \$19 million in 2019, the last full year of fare collection before the COVID-19 pandemic. In 2021, the first full year of fare collection since the pandemic, Metro collected approximately \$8 million in cash revenue, representing 18 percent of all fare revenue. As of Q3 2021, 17 percent of frequent and infrequent riders report using cash to pay their fare, down from 32 percent in 2013.³¹ Metro will face a decision as to whether to invest in a new stock of fareboxes to continue collecting a declining revenue source, while also considering the related equity points described in Section B of this report.

Paper Transfer

Upon paying a fare in cash or with a paper ticket, a bus operator provides a rider with a paper transfer that is good for two hours on Metro buses. The operator will tear the transfer to indicate the time of the end of the transfer period. To use a paper transfer, a rider shows it to the operator upon boarding. Paper transfers are not transferable to other regional transit systems, including Sound Transit.

Metro designs and prints paper transfers six to twelve months in advance of when they are used. Once printed, transfers are stored at the Revenue Processing Center and distributed to each bus base daily. Operators are directed to return unused transfers so that they can possibly be re-used. To avoid the counterfeit production and use of paper transfers, Metro has devised a system of codes and colors so that each transfer is different every day.

³¹ Q3 2021 Rider/Non-Rider survey, 69

No components directly related to paper transfers need replacement. If cash fareboxes are no longer installed on buses, paper transfers would no longer be distributed.

Transit GO Ticket

Transit GO Ticket is a regional mobile ticketing platform led by Metro and adopted by Sound Transit and Kitsap Transit. In 2016, Metro awarded the Bytemark Company a contract for mobile ticketing services and the mobile ticketing pilot was launched to the public in November of that year.

Customers can download the Transit GO Ticket application on their smart mobile device to purchase and activate tickets for Metro bus service (including RapidRide service and on-demand services like Via to Transit, Ride Pingo to Transit, and Community Ride), Seattle Streetcar, Water Taxi, and Access Paratransit. Transit GO Tickets can also be purchased for Sound Transit Link light rail and express bus, Sounder train, and Kitsap Transit bus and fast ferry services. Transit GO Tickets do not support inter-agency transfers (e.g., between Metro and Link light rail). Riders can use a credit or debit card to pay for tickets within the application or purchase a Transit GO Ticket fare with cash at stores in the Transit GO Ticket retail network.

Tickets purchased with Transit GO Ticket are stored in a customer's "Available Tickets" section on their mobile device or in the cloud until they are activated by the customer and shown to the bus operator or fare inspector upon boarding. The Transit GO Ticket stays active for the duration of the transfer period, enabling riders to transfer onto eligible connecting or returning routes.

Metro is under contract with Bytemark to host Transit GO Ticket through December 2022, with an option to extend to 2024. It is expected that planned new ORCA improvements will replicate key functions and features of Transit GO Ticket, rendering it duplicative. Mobile ticketing is a key backup for non-cash fare payment if new ORCA functionality issues arise during the transition period. As new features become available in the new ORCA system, Metro will decide when Transit GO Ticket is redundant, make the decision to not renew the Bytemark contract and discontinue the Transit GO Ticket service.³²

Paper Tickets

Three types of paper tickets are accepted on some Metro services: Human Services Tickets, Free Ride Tickets, and Water Taxi Tickets.

The King County Council created the Human Services Bus Ticket Program in 1993 to provide transportation for people with low incomes and experiencing homelessness so they can access housing, health care, employment, and related services critical toward establishing personal and residential stability.³³ Sound Transit joined the program in 2012.

³² New ORCA features that may render Transit GO Ticket duplicative include bulk distribution of cards with different fare values to groups of customers, integrations with third party "Mobility as a Service" providers (bike share, scooter share, etc.), and customer loyalty and other programs.

³³ [KCC 4A.700.210](#) authorizes annual funding for the program.

Figure 6 - Sound Transit / Metro Combo Human Services Ticket and Metro Ticket



Under the Human Services Ticket Program, tickets are distributed to human service agencies through an annual competitive allocation process, using a Request for Proposals managed by the King County Department of Community and Human Services (DCHS), with funding from Metro. Human service agencies are awarded an allocation amount, which they can use to purchase discounted tickets. Ninety percent of the ticket value is subsidized by Metro and Sound Transit. The King County Code authorizes Metro to forgo up to \$4 million in revenue to support Human Service Ticket Program. DCHS audits participating human service agencies for program adherence.

Human service agencies can purchase different types of tickets for distribution to their eligible clients:

- Adult, Youth or Regional Reduced Fare Program Metro tickets³⁴
- Sound Transit Link All-Day tickets
- Sound Transit Link/ Metro combination tickets

Participating human service agencies order tickets via a paper order form, which is submitted to Metro’s Pass Sales Office by mail or in person. Human Service Tickets must be picked up in person at the Pass Sales Office. Agencies may distribute more than one ticket to an individual at a time, but recipients must receive their tickets in-person and initial or sign the usage log verifying the transaction. Since a Link light rail All Day Ticket acts as a flash pass valid for only one day, agencies are instructed to write in the date that the client is planning on using the rides before distributing.

To use a human services ticket on a Metro bus, a rider feeds the ticket into the farebox and can request a paper transfer, just as with cash fare payment. To use a human services ticket on Access Paratransit, the ticket is given to the driver, the same as paying cash. To use an All-Day Ticket on Sound Transit Link

³⁴ Human Service Bus Tickets are accepted on the following routes: 560, 574, 566/567, 577/578, 580, 586, 590, 592, 594, 595, 596 (PT operated); 522, 540, 541, 542, 545, 550, 554, 555, 556 (King County Metro-operated)

light rail, customers board the Link light rail and show their Link All-Day Ticket with the valid date if asked for proof of payment.

Every year Metro distributes roughly 50,000 Free Ride tickets, which are valid on any Metro fixed-route bus service; Metro also distributes a small number of Free Ride tickets for Access Paratransit. Free Ride tickets are not available for sale and are intended to be used for promotional or customer-service-related reasons. Free Ride ticket usage and lost fare revenue is managed through the Special Rates of Fare Program and reported on annually in the Rates of Fare Report.

Free Ride tickets have typically been used for these purposes:

- Event outreach
- Customer service issues
- Testing Access Paratransit service
- Service change and ridership promotions
- Support between other agencies (e.g., Pierce Transit, Sound Transit, Community Transit)
- To organizations providing transportation support on Metro’s behalf (e.g., Redmond Transit Management Association or Commute Seattle)
- To new students at colleges
- To bridge the gap between ORCA card distribution for institutional accounts
- For parades and community events
- Transit survey incentives
- Adopt-a-Stop incentives

Water Taxi riders can purchase paper tickets at vending machines in the Water Taxi terminal using cash, credit card, or debit card. Water Taxi paper tickets are placed into the farebox upon boarding.

Aside from farebox issues, no components directly related to paper tickets need replacement. In the case that cash fareboxes are no longer installed on-board buses, Metro will need to develop a new system for collecting them or create a new type of fare media. Metro is developing enhancements to the Human Services Bus Ticket Program to include an ORCA option, which would reduce reliance on paper tickets. More information on this can be found in the “Opportunities for Investment in Improving the Accessibility or Affordability of Fares for Priority Populations” section of this report.

B. An equity impact review, including identification of communities that could be disproportionately adversely impacted by the transition to a contactless fare system and therefore should be priority populations in the design of a contactless fare collection system

Metro utilized the King County Equity Impact Review (EIR) tool as a framework to identify communities that could be disproportionately adversely impacted by the transition to a contactless fare system and analyze the fare collection alternatives studied by the Stakeholder Advisory Group.³⁵ The EIR helps to identify, evaluate, and communicate the potential impacts — both positive and negative — of a policy or program on equity. The analysis below follows the five phases of the EIR process:

- Phase 1: Scope. Identify who will be affected

³⁵ [King County Equity Impact Review Process](#)

- Phase 2: Assess equity and community context
- Phase 3: Analysis and decision process
- Phase 4: Implement. Are you staying connected with communities and employees?
- Phase 5: Ongoing learning. Listen, adjust, and co-learn with communities and employees

Phase 1 – Scope. Identify who will be affected

Metro identified that certain riders as more likely to pay their fare in cash — and therefore more likely to be disproportionately adversely impacted by the transition to a contactless fare system — using the following methods:

- **Rider/Non-Rider survey data.** The purpose of Metro’s Rider/Non-Rider survey is to gauge riders' satisfaction with various elements of bus services, gain insight into residents’ perceptions of Metro performance during the pandemic, understand ridership barriers and potential transit interest among lapsed riders, and identify demographic and geographic characteristics of riders and non-riders. The survey is offered in English, traditional Chinese, Spanish, Vietnamese, and Somali languages. Responses are weighted by key demographics to reflect the most recent Census American Community Survey estimates for residential households in the King County Metro service area. Metro drew on multiple versions of the survey dating back to 2018.
- **Engagement with stakeholders.** As part of the development of this proviso report, Metro engaged with a 24-member Stakeholder Advisory Group representing agencies that work with priority populations in addition to engaging with the Access Paratransit Advisory Committee, the Transit Advisory Commission, the Metro Equity Cabinet, and three local transportation advocacy groups. These groups provided key insights into priority populations’ experience of the fare collection system. A summary of the engagement process is included in Section C of this proviso report, and a full Engagement Report is attached as Appendix A.
- **Interviews with riders who pay cash.** As part of its effort to better understand the barriers faced by riders who pay cash to accessing transit, Metro worked with four local community-based organization partners in 2021 to conduct interviews with a diverse set of 22 Metro riders who pay their fare in cash some or all of the time, 13 of whom were interviewed in a language other than English.³⁶ These interviews provided key insights about the experience of riders who pay cash that informed the following analysis. Using these methods, Metro identified the following riders as more likely to pay their fare in cash, and therefore more likely to be disproportionately adversely impacted by the transition to a contactless on-board fare system.

³⁶ Metro contracted with a consultant to develop interview protocols and questions. Interviews were facilitated by community-based organization partners Chinese Information and Service Center, Congolese Integration Network, Mt. Baker Housing Association, and Open Doors for Multicultural Families. Nine interviews were conducted in English and thirteen interviews were conducted in languages other than English with an interpreter present, including Cantonese, French, Khmer, Lingala, Mandarin, Somali, Swahili, Tigrinya, and Vietnamese. Both the interviewees and the community-based organization partners were compensated for their participation.

- **ORCA LIFT-eligible riders (at or below 200 percent of the federal poverty level³⁷).** ORCA LIFT is Metro’s reduced fare program through which qualifying riders can save up to 50 percent or more on transit fares on Metro and numerous other regional transit providers. Riders who are eligible for the subsidized annual pass, currently defined by enrollment in one of six state benefit programs, can obtain an ORCA LIFT card that contains a subsidized pass that covers the full cost of service on Metro, Sound Transit, Seattle Streetcar, and Seattle Center Monorail for up to a year.^{38,39}

While 55 percent of ORCA LIFT-eligible riders responding to the Rider/Non-rider Survey report that they use Metro for most or all of their transportation needs—nearly double the overall rider level of 30 percent⁴⁰— and while the ORCA benefit is only available through the ORCA LIFT card, these riders are three times as likely to use cash as their usual fare payment method (31 percent compared with 10 percent for non-ORCA LIFT-eligible riders).⁴¹ The most frequently cited reason these riders use cash instead of an ORCA card is that they don’t ride enough to make it worthwhile (38 percent of respondents) and that it is easier to pay with cash (35 percent of respondents).⁴² ORCA LIFT-eligible riders are also more likely to make one or more transfers on their most common trip; when using cash these riders are not able to take advantage of discounted transfers between transit agencies—for example, between King County Metro and Sound Transit Link light rail⁴³

- **BIPOC riders.** Forty-seven percent of Black, Indigenous, and People of Color (BIPOC) riders who responded to the survey report that they are regular riders⁴⁴ of Metro.⁴⁵ Forty-four percent of BIPOC riders report that they use Metro for most or all of their transportation needs, compared with 32 percent of the rider population as a whole.⁴⁶ Per the Rider/Non-Rider Survey, BIPOC riders are also more likely to use cash (20 percent) and less likely to use an ORCA card (49 percent) as their primary payment method, compared to 13 percent and 55 percent of the rider population as a whole, respectively.⁴⁷ BIPOC riders who are ORCA LIFT-eligible are more reliant on transit, less likely to use ORCA, and more likely to use cash than BIPOC riders overall.⁴⁸ In 2021, 30 percent of rider respondents to Metro’s Rider/Non-Rider survey self-identified as a person of color, and approximately 17 percent of self-identified people of color also report

³⁷ The federal poverty level is scaled to the number of members in a household. In 2021, an income at 200% of the federal poverty level for a household of four is \$53,000.

³⁸ The six programs are Temporary Assistance for Needy Families (TANF)/State Family Assistance (SFA), Refugee Cash Assistance (RCA), Aged, Blind, or Disabled Cash Assistance (ABD), Pregnant Women Assistance (PWA), Supplemental Security Income (SSI), and Housing & Essential Needs (HEN).

³⁹ The participation in the subsidized pass program by the non-Metro agencies (Sound Transit, Seattle Department of Transportation for Seattle Streetcar, and Seattle Center Monorail) are as pilots, currently set to end in September 2022 (for Sound Transit) and December 2022 (for Seattle Streetcar, and Seattle Center Monorail).

⁴⁰ 2019 Rider/Non-Rider, 56

⁴¹ 2018 Rider/Non-Rider, 81

⁴² Income-based Fare Program Implementation Plan, D-33

⁴³ Income-based Fare Program Implementation Plan, D-24

⁴⁴ A rider is considered a “regular rider” if they make five or more trips on Metro per week.

⁴⁵ 2018 Rider/Non-Rider, 76

⁴⁶ 2018 Rider/Non-Rider, 77

⁴⁷ 2018 Rider/Non-Rider, 82

⁴⁸ Market Innovation Staff Analysis of Rider/Non-Rider data

being eligible for ORCA LIFT.⁴⁹

- **Riders from households where English is not the primary language.** Forty-five percent of rider survey respondents from households where English is not the primary language report using Metro for most or all of their transportation needs, 50 percent higher than riders from primarily English-speaking households.⁵⁰ Language has been identified as a significant barrier to accessibility of Metro’s programs focused on making fares affordable.⁵¹ While riders from households where English is not the primary language use cash at about the same rate as riders overall, riders from households where English is not the primary language who are also ORCA LIFT-eligible are more reliant on transit and more likely to use cash than riders from households who speak a primary language other than English.⁵² This rider group may include immigrants and refugees.

In 2021, 9 percent of rider respondents to Metro’s Rider/Non-Rider survey self-identified as primarily speaking a language other than English. Approximately 17 percent of those riders also report being eligible for ORCA LIFT.⁵³

- **Riders who are underbanked or unbanked.** Bank on Washington, a coalition offering financial empowerment resources, estimates that 17.5 percent of Washington residents are underbanked, meaning that they rely on some fringe financial services such as money orders or payday loans rather than traditional bank accounts.⁵⁴ The Federal Deposit Insurance Corporation estimates that 2.6 percent of residents of the Seattle-Tacoma-Bellevue Metropolitan Statistical Area are completely unbanked, meaning they are not served at all by a traditional bank.⁵⁵ Riders who are underbanked or unbanked may find it more difficult to use fare payment media other than cash because they lack access to a bank account, debit card, or credit card.
- **Riders with disabilities.** Per the Rider/Non-Rider Survey, forty-eight percent of riders with disabilities report using Metro for most or all of their transportation needs, compared to 30 percent across all riders and 28 percent of riders with no disability.⁵⁶ Among regular and infrequent riders with disabilities, approximately 30 percent use only cash or paper tickets to pay their fare, compared to 17 percent for all riders.⁵⁷ Riders with a disability are eligible for the Regional Reduced Fare Permit, which provides discounted fares on participating regional transit systems. Riders with disabilities who are ORCA LIFT-eligible are more reliant on transit, less likely

⁴⁹ The Rider/Non-Rider survey is designed to be representative of King County as a whole and reflect ridership, as well. Since the coronavirus pandemic, however, the margin of error around the sample of riders specifically has increased.

⁵⁰ 2019 Rider/Non-Rider, 56

⁵¹ Income-based Fare Program Implementation Plan, A6, A16

⁵² Composite of Rider/Non-Rider survey data

⁵³ The Rider/Non-Rider survey is designed to be representative of King County as a whole and reflect ridership as well. Since the coronavirus pandemic, however, the margin of error around the sample of riders has increased.

⁵⁴ [Bank On Washington](#)

⁵⁵ [2019 Survey Results for Seattle-Tacoma-Bellevue, WA](#)

⁵⁶ 2019 Rider/Non-Rider survey, 56

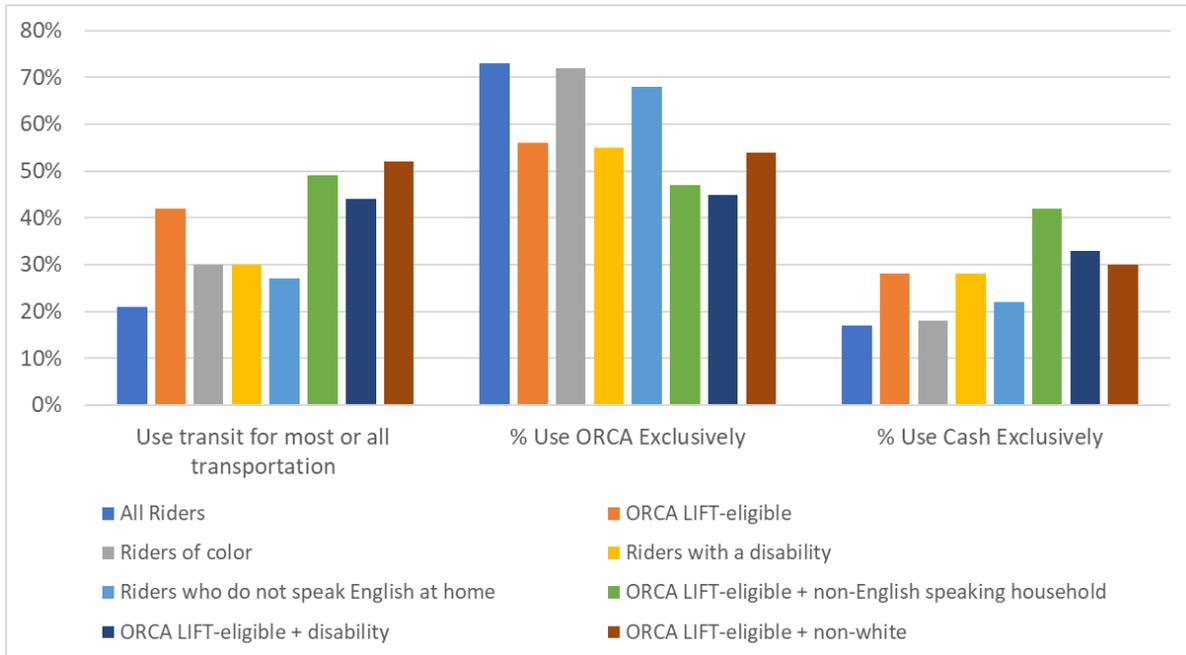
⁵⁷ Rider/Non-Rider survey

to use ORCA, and more likely to use cash than riders with disabilities overall.

In 2021, 8 percent of rider respondents to Metro’s Rider/Non-Rider survey self-identified as having a disability, and approximately 34 percent of these riders also reported being eligible for ORCA LIFT.⁵⁸

Figure 7 below highlights the differing levels of reliance on public transit and the use of ORCA compared with cash between the overall rider population and riders from priority populations. Priority population riders are both more likely to rely on transit for most or all of their transportation needs and more likely to exclusively use cash as their fare payment method.

Figure 7 –Transit Reliance and Fare Media Usage of All Riders and Priority Population Riders⁵⁹



Nearly half of riders who pay cash report that the reason they do not use ORCA is that they don’t ride enough to make it worthwhile, by far the most common response (Figure 8). However, priority population riders are more likely to report that the reason they use cash is that it is easier, they do not have a credit or debit card, or can’t afford the card fee than the rider population overall (Figure 9).

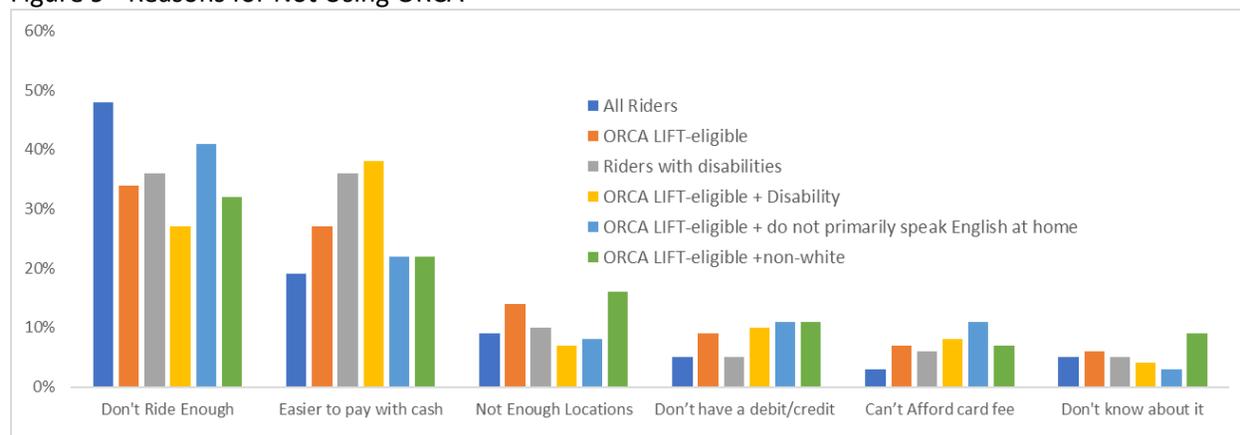
⁵⁸ The Rider/Non-Rider survey is designed to be representative of King County as a whole and reflect ridership. Since the coronavirus pandemic, however, the margin of error around the sample of riders specifically has increased.

⁵⁹ Rider/Non-Rider survey

Figure 8 - Reasons Riders Who Pay Cash Do Not Use ORCA – All Riders⁶⁰

Reason Riders Who Pay Cash Do Not Use ORCA	% of Respondents (n = 509)
Don't ride enough	48%
Easier to pay with cash/tickets	19%
Not enough locations where I can go to buy a pass or add value	9%
Haven't gotten around to it/No time/Lost card	9%
Don't have a debit or credit card	5%
Don't know about it/haven't looked into it	5%
Concerns about losing ORCA card	5%
Don't want to/Unwilling to pay the \$5 fee to purchase an ORCA card	4%
Can't afford the \$5 fee to purchase an ORCA card	3%
Receive tickets from social service agency/school/work	2%
Concerns about security/Identity theft using an ORCA card	2%

Figure 9 - Reasons for Not Using ORCA⁶¹



Priority population riders are both more likely to be reliant on transit and more likely to use cash to pay their fare, making them particularly vulnerable to a cashless on-board fare collection system. Priority population riders also cite different reasons for using cash than riders who pay cash overall, suggesting that future next steps must be informed by a deeper understanding of the specific barriers to obtaining and using non-cash fare payment faced by different groups of riders. These barriers are discussed in Phase 2 of this Equity Impact Review and in Section C of this report.

⁶⁰ Rider/Non-Rider survey

⁶¹ Rider/Non-Rider survey

Inequities in Metro's Current Fare Structure

Metro's current fare structure and policies put riders who pay cash at a disadvantage as compared to ORCA users in the following ways.

- **Access to reduced fares.** Per the King County Code, riders with low incomes can only access the reduced ORCA LIFT fare and subsidized annual pass on an ORCA card.⁶² About half of survey respondent transit riders eligible for ORCA LIFT report paying full fares using cash, some of whom find the fare structure and payment process difficult to understand.⁶³
- **Inter-agency transfers.** Metro paper transfers are not valid for inter-agency transfers. For example, a Metro rider who pays cash fare must pay a second full fare when transferring to Link light rail; with ORCA, that rider must only pay the difference between the Metro fare and the Link fare if Link fare is higher. Riders who pay cash and who transfer from Metro to Link pay up to \$2.75 more for that trip than riders using ORCA. This disadvantage of paying cash will become increasingly relevant as Metro makes changes to its service to complement (i.e., feed service to and necessitate transfer to) new Link light rail lines.
- **Pass products.** Potentially money-saving daily or monthly pass products that allow riders to ride an unlimited number of times per day/month are only available on ORCA. The full cost of these passes must be paid upfront.

Phase 2 – Understand Equity Impacts

As described in Phase 1, equity priority population riders utilize the on-board cash fare payment system at a higher rate than riders overall. While Metro has gained important insights into how riders who pay cash use transit through public engagement for this proviso, survey data, and rider interviews, Metro recognizes that more robust engagement and research is required to better understand and address the potential impacts of a cashless on-board system as well as design and implement solutions to address barriers. While Metro cannot predict the extent to which a future transition to a cashless on-board fare payment system would change travel behavior—including how many would switch to ORCA, how many would use transit more, less, or the same amount as they currently do, and how many would stop using transit altogether—Metro is committed to continuing to listen to and work with community stakeholders to design the future fare payment system and ensure that negative equity impacts are understood and minimized when possible.

Priority Population Concerns

Metro engaged with a Stakeholder Advisory Group, which was tasked with identifying potential positive and negative equity impacts of a future transition away from cash fare collection on board. The advisory group raised the following concerns and issues, all relating to ORCA-use barriers and other challenges around accessing the Metro fares system.

⁶² K.C.C. 4A.700.490

⁶³ Income-Based Fares Public Engagement Report, 2019

- Concern that the loss of a cash on-board option will be overly burdensome on priority population riders by requiring them to switch to ORCA, a fare media to which they face many access barriers.
- Identification of technological, financial, and language barriers to using contactless fare payment.
- Difficulty in understanding the fare system, including how to buy, use, reload, and replace ORCA cards, as well as the scope and eligibility criteria for reduced fare programs.
- Support for offering ORCA services (purchase, reload, and replace) should be provided at locations where priority populations already access services, such as social service centers.
- Prohibitive cost of ORCA card fees.
- Support for ensuring a focus on riders who are not able to afford any fare at all.
- Concern about individuals' loss of ORCA cards and human service bus tickets.
- Interest in expanding eligibility for reduced fare programs.

A full summary of the community engagement with priority populations conducted for this proviso report, including barriers faced by priority populations, can be found in Section C of this report.

As part of the effort to better understand riders who pay cash, in 2021 Metro also partnered with four local community-based organizations to conduct interviews with a diverse group of 22 Metro riders who pay their fare in cash some or all of the time, 13 of whom were interviewed in a language other than English.⁶⁴ The interviews focused on identifying the barriers that each interviewee faces to using non-cash payment media.⁶⁵ Interviewees provided valuable insights into their experiences using transit that supplemented the information Metro gathered from survey data and engagement with the Stakeholder Advisory Group and other partners. The following rider experiences highlight some of the different ways riders experience barriers to using ORCA, including language, technology, and trust.⁶⁶

- **Elijah** is a senior who uses the bus several times a week to see friends and family and run errands. He has a reloadable Senior RFP but prefers to use cash because he typically transfers between bus routes. Even with careful planning, he is not always able to complete the journey in two hours.
- **Jack** is an immigrant who does not speak or read English. He rides the bus alone or with his son, who has a disability, three to four times per week. Cost is the most important consideration to him, and he has only ever paid with cash. He has seen people pay with cards but wonders

⁶⁴ Interviews were facilitated by community-based organization partners Chinese Information and Service Center, Congolese Integration Network, Mt. Baker Housing Association, and Open Doors for Multicultural Families. Nine interviews were conducted in English and thirteen interviews were conducted in languages other than English with an interpreter present, including Cantonese, French, Khmer, Lingala, Mandarin, Somali, Swahili, Tigrinya, and Vietnamese. Both the interviewees and the community-based organization partners were compensated for their participation.

⁶⁵ A full report on these interviews is included with this report as Appendix E. Recruitment materials for the community-based organizations and individual interviewees, as well as the interview script, are included with this report as Appendix F.

⁶⁶ All names are pseudonyms. Example rider experiences may represent the stories of one interviewee or a composite of multiple interviewees with similar experiences.

whether he rides enough for a card to be a good deal for him. He is not sure if a card would be affordable.

- **Clare** is an immigrant who had a habit of paying cash on the bus in another country. When she moved to the area, she began paying with cash on the bus. She briefly had an ORCA card in the past but lost it and has no interest in replacing it. She didn't like that she was unable to easily track the money on the card. She worried about not having enough to ride and about getting stranded if she lost her card or if it ran out of money.
- **John** was born in the U.S. and moved to Seattle twenty years ago. He uses cash and ORCA to go to work most days. He has some concerns about sharing personal information with King County Metro to apply for a card, but ultimately believes his information is likely being used only for transit purposes. He knows it is helpful to the agency to collect information about riding, but hopes it is protected and anonymized.
- **Maya** is an immigrant and parent with language and technology barriers. She has limited information about transit that she has acquired through word of mouth. She pays \$2.50 in cash—which she believes is the correct fare—or uses human services bus tickets for herself and her son. She could likely save money if they used ORCA LIFT or ORCA Youth and expressed interested in using ORCA LIFT when she learned about it during the interview.

Determinants of Equity Analysis

King County defines the Determinants of Equity as, “the social, economic, geographic, political and physical environment conditions in which people in our county are born, grow, live, work, and age that lead to the creation of a fair and just society.”⁶⁷ Access to these determinants of equity is necessary for an equitable society. The following summarizes the relationship between a transition to a cashless on-board fare payment system and the determinants of equity.

For riders who depend on Metro for transportation, many other determinants of equity become directly tied to the accessibility of transit. For many riders, Metro is an invaluable service that facilitates connections to school, employment, health and social services, healthy food, familial and social circles, parks and outdoor recreation activities, and housing options. As the Determinants of Equity report states, “The goal of transportation is mobility that connects people with opportunities. Whether it is to school, work or play, the ability to safely and efficiently navigate King County is critical for creating an environment for people to thrive.”⁶⁸ Because of Metro Transit’s centrality to the regional transportation system, any change in policy that affects transit fares will also affect transportation equity. This is especially true for changes in fare collection policy that affect cash fare payment because, as illustrated earlier, cash payment is more frequently used by priority populations who are more reliant on public transportation than other groups.

The loss of an on-board cash fare payment option could negatively impact access to transportation for the people identified above as, potentially “disproportionately adversely impacted by a transition to a contactless fare system.” As discussed in Phase 1 of this section, many riders who pay cash face financial, technological, cultural, and other barriers to using ORCA that are not simple to overcome. As a result, a cashless on-board option could make transit less accessible for many riders who currently rely

⁶⁷ [The Determinants of Equity](#)

⁶⁸ Ibid, 106

on it for most or all of their transportation needs. Also as detailed above, inter-agency transfers will increase in importance on Metro's services as they increasingly integrate with Link light rail expansion. Metro paper transfers are not valid on other transit agencies, leaving riders who pay cash with more limited mobility options than ORCA users.

Based on feedback from stakeholder engagement, rider research, and surveys, any potential future transition to a cashless on-board fare payment system needs to not only examine and solve for impacts to those most affected by a policy change but also to look beyond the cash question. Metro and its ORCA partners must examine how to make the fare system more equitable, accessible, and affordable; this can only be accomplished by collaborating with community stakeholders, particularly those who face the most significant barriers to using the ORCA system.

Phase 3 – Analysis and Decision Process

This section will analyze the four fare collection system alternatives proposed by Metro to the Stakeholder Advisory Group. The advisory group analyzed, proposed changes to, and ultimately recommended certain alternatives as presented below.

Metro developed these alternatives after researching peer agencies' fare media options, reviewing best practices, and consulting with experts both within Metro and beyond. Metro presented these alternatives to the Advisory Group, which analyzed and refined them to better reflect the needs of their priority population clients.

Below, each alternative is described and analyzed to determine how it responds to concerns raised by the Stakeholder Advisory Group and other community members. Given Metro's participation in the ORCA network and its goal to promote inter-agency operability through regionally adopted fare products and services, implementation of any of these alternatives would occur only in communication and coordination with regional transit partners.

Fare Collection Alternatives Studied by Stakeholder Group

Alternative 1 - Expand ORCA Retail Network

This alternative would expand the retail network where riders can purchase and load funds on their cards either in cash or with a debit or credit card to include locations such as social service agencies, libraries, and culturally relevant stores, in addition to grocery and convenience stores. Stakeholders indicated that expansion of the retail network to such locations would improve access and lower barriers to the fare system for priority population riders by bringing ORCA services to places where they might be receiving services, shopping, or gathering anyway.

The Stakeholder Advisory Group noted that for some riders, going to neighborhood corner store or social service agency to manage an ORCA card could be more comfortable and convenient. Therefore, Metro should provide ORCA access at locations where riders already receive other services and are familiar with staff. By eliminating the need to make extra trips to reload an ORCA card with funds, this expanded access would be particularly useful for unbanked and underbanked riders, riders who would prefer to use cash to load their ORCA, senior riders, riders with disabilities for whom traveling long distances is burdensome, and riders who speak a primary language other than English.

Alternative 2 - Expand Vending Machine Network

Vending machines are standalone kiosks used to purchase and load ORCA cards. Future placement of vending machines in neighborhoods with limited retail network options or a high density of transit options would provide many of the same benefits as the retail network, such as reducing the distance needed to travel to reload at a physical location and providing a cash load opportunity. Vending machines also feature Chinese, Korean, Russian, Spanish, Tagalog, and Vietnamese interfaces. However, vending machines do not address many of the ORCA-use barriers identified for priority populations, one of which involves a lack of comfort with technology. Finally, the costs associated with this alternative are high, as they would include additional machine purchasing, installation, and maintenance.

There are currently 77 vending machines located across all Sound Transit Link stations,⁶⁹ as well as machines at the King Street Center Pass Sales Office in downtown Seattle, the Burien Transit Center, and the Sounder stations at King Street, Tukwila, Kent, and Auburn. Metro is planning to install another 15 machines at key transit hubs beginning in 2022.⁷⁰

Alternative 3 - RFID Wearables and Stickers

Several transit agencies, including Los Angeles Metro and TransLink (Vancouver, BC), have piloted “wearable” fare media such as wristbands or rings that function like a standard transit card. The wearable fare media would be managed in the same way as a standard ORCA card and could even be associated with the same account as an existing ORCA card. Another flexible option is RFID stickers affixed to any card or other surface that could then be connected to a rider’s ORCA account.

Stakeholder Advisory Group members described how this type of fare media would be a useful solution for riders who have difficulty keeping track of an ORCA card or items of value. Offering a wearable type of fare media—making it much more difficult to lose—could result in fewer lost cards, lost E-purse balance, and card replacement fees, all three of which were identified as disincentives for riders with lower incomes to adopt ORCA. “Wearables” and stickers could also be particularly valuable for riders for whom carrying multiple cards is less practical. However, these alternatives would not solve affordability issues, as the rider would still need to add value to pay for their trips, nor does it address any barriers to managing ORCA balances, which must still be updated either online or at a retail network location.

Figure 10 - TAP (Los Angeles) Wearable Fare Media



Alternative 4 - Limited Use Tickets

⁶⁹ [Ticket Vending Machines](#)

⁷⁰ See Appendix

RFID-enabled limited use tickets are pre-loaded, disposable fare media that can be tapped on an ORCA reader. Although there is not currently the infrastructure to offer this type of fare media, a future limited use ticket could theoretically be available at vending machines and retail network locations, could be loaded with multiple rides or a pass, would have no card fees, and would be valid on inter-agency transfers.

Stakeholder Advisory Group members identified ORCA fees and managing balances as challenges for riders who are in unstable housing situations or are otherwise in periods of transition. Limited use tickets could offer these riders a shorter-term fare media option that offers similar benefits to ORCA without the associated cost or trust barriers. Community-based organizations could also purchase and distribute limited use tickets to their clients. The limited use ticket could be pursued as an ORCA-based solution for the paper-based Human Service Ticket fare media, which would bring the benefit of intersystem transfers to community-based agency clients.

Planned New ORCA Upgrades

In addition to the fare collection alternatives presented above, this section describes the equity impacts of several more planned or potential changes that new ORCA will bring to the system— all of which address many of the ORCA-use barrier issues identified by the Stakeholder Advisory Group.

Negative Balance Allowance

The new ORCA system will allow a rider who has less than the full fare on their ORCA card to go into a negative balance upon boarding. The rider would be able to refill their card later.

Stakeholder Advisory Group members and rider interviewees noted that a common barrier to ORCA usage among riders who pay cash is difficulty keeping track of their ORCA balance and a fear that they may not have enough value to pay for a fare.

Under the current ORCA system, a rider who taps an ORCA card that does not have funds sufficient to cover the fare may add the remaining fare balance in cash. In the new ORCA system, riders will not be able to add cash to make up a fare difference but will be able to reach a negative balance as low as -\$2.75. This will allow people to ride even when their balance does not cover the cost of the ride.

Mobile Application

New ORCA will feature an enhanced mobile application through which riders can check their balance, purchase E-purse value or passes, and set up autoload with any type of debit or credit card. The mobile application will feature Chinese, Korean, Russian, Spanish, Tagalog, and Vietnamese interfaces.

The mobile application will provide smartphone users the option to reload their card with funds using a credit or debit card within the app, eliminating the need for the user to go to a retail network location or vending machine. Chinese, Korean, Russian, Spanish, Tagalog, and Vietnamese options will eliminate language barriers for speakers of those languages.⁷¹

⁷¹ Chinese, English, Korean, Russian, Spanish, Tagalog, and Vietnamese

Open Payment

Open payment gives riders the ability to tap to pay with a contactless bank-issued credit or debit card instead of an Adult ORCA card and have the equivalent fare deducted from the associated account.

Open payment would be beneficial for infrequent riders and riders with unstable housing situations who may not wish to or are unable to carry, reload, and keep track of an ORCA balance. For riders with lower incomes that are hesitant to purchase an ORCA and pre-load it with value, thus making those funds unavailable for other uses, open payment allows a rider to pay as they ride, like they do with cash. For riders with language or cultural barriers or unfamiliar with the transit system, open payment avoids ORCA awareness barriers and the need to understand a complex fare payment system. ORCA agencies are currently exploring open payment as a possible new ORCA Phase 2 priority project.

New ORCA Rider Benefits

- Decrease in issuance and replacement fees for Adult ORCA from \$5 down to \$3
- Decrease in replacement fee for Youth ORCA from \$5 down to \$3⁷²
- Ability to use ORCA app on mobile phone as fare media (also known as “Tap to Pay”)

Phase 4 – Implement/Phase 5 – Ongoing Learning

This section of the Equity Impact Review identifies how Metro will engage with stakeholders in the future planning and implementation of policies and programs related to cash fares.

Metro does not currently have a timeline or budget for phasing out cash fare payments on-board buses. Metro’s preferred course of action is to sustain the current cash farebox maintenance and refurbishment practice, while continuing to address the barriers and needs identified by community stakeholders in the engagement done for this proviso. Metro will develop and test solutions in collaboration with riders most likely to be affected by the loss of a cash on-board fare payment option. Stakeholder feedback and direction will guide the development and implementation of new strategies, programs, and policies focused on increasing priority populations’ access to transit. Metro will engage in a process of continuous monitoring to track trends, analyze programs and policies, and adjust them to ensure that the best possible outcomes for priority populations are being realized.

C. A summary of the community engagement process, conducted by the Metro transit department and cocreated by stakeholders identified as representing priority populations, including fare collection system alternatives considered in the community engagement process and recommendations made by priority populations

Overview

To support the development of this proviso, Metro engaged with a Stakeholder Advisory Group of 24 organizations as well as the Access Paratransit Advisory Committee (APAC), Transit Advisory Committee (TAC), Metro Equity Cabinet, and a group of local transportation advocacy organizations to receive feedback and direction on the following topics.

⁷² This report was drafted before final action by the state legislature proposed legislation impacting youth fares.

- Identification of rider populations most likely to experience adverse impacts if cash were no longer accepted for fare payment on-board as well as the scope of those impacts
- Potential alternatives for fare collection
- Recommendations on how to engage with priority populations about fare collection

A summary of the engagement conducted for this report is included below; a full Community Engagement Report is attached to this report as Appendix A.

Background

The COVID-19 pandemic and public health guidelines restricting in-person meetings and gatherings influenced how this engagement was conducted. Metro adhered to Washington State mandates limiting the occurrence of in-person meetings, events, and gatherings since March of 2020. Without the option to gather and solicit for in-person participation, outreach moved to digital and virtual platforms. Suspension of Metro's in-person outreach at community events, fairs, and pop-up events affected the breadth, depth, and number of community members reached.

To capture the value of input from historically underserved and linguistically diverse communities (including those affected by racism, bias, poverty, disability, and/or immigration status), Metro reached out to a diverse range of community-based organizations that primarily serve priority populations. Approaches used intended to provide participants with meaningful ways to engage and influence the decision-making process. The stakeholder advisory group interviews and group discussions provided an opportunity for Metro to understand the needs and priorities of these populations and inform current and future engagement activities.

Stakeholder Engagement

Metro convened a Stakeholder Advisory Group consisting of a diverse group of representatives of 24 Community Based Organizations that provide direct services, with a particular focus on those that are led by and for BIPOC, immigrants and refugees, linguistically diverse people, people with low and/or no-incomes, and/or people with disabilities. The Stakeholder Advisory Group included organizations working in community health, disAbility rights and services, domestic violence prevention and support, HIV+ direct services, LGBTQ+, refugee and immigrant services, behavioral health and treatment, and low- and no-income housing and direct services.

Community Based Organizations are often trusted advocates for community, particularly for people of color, low-income people, immigrants and refugees, people who primarily speak a language other than English, people with disabilities, and those who are at or below 200 percent of the federal poverty level. Because these groups are both more likely to be reliant on transit and more likely to use cash to pay their fare, Stakeholder Advisory Group members were able to provide a valuable perspective about how their clients experience and use Metro's fare system.

Stakeholder Advisory Group members provided their insights and observations to Metro over three meetings in the fall of 2021 (summarized below). Specific elements of their work included:

- Bringing the voices and perspectives of those most impacted by a potential shift to a cashless fare system

- Identifying and analyzing alternatives to current fare collection methods, including potential positive and negative equity impacts
- Recommending fare collection alternatives
- Collaborating on future engagement strategies that Metro can use to engage the public at the next phase of this process to better understand the needs of riders who pay cash
- Using a “no wrong door” philosophy to engagement so all staff act as a liaison for questions or feedback about aspects of mobility or other services that are not directly related to this project are welcomed and addressed

The following organizations participated in the Stakeholder Advisory Group:⁷³

- | | | |
|---|--|---|
| • Alliance of People with disAbilities | • Evergreen Services' REACH Program | • Refugee Women's Alliance |
| • API Chaya | • International Rescue Committee | • Sea Mar Community Health Centers |
| • Asian Counseling and Referral Service | • Issaquah Food & Clothing Bank | • Teen Feed Service Links for Youth |
| • Byrd Barr Place | • Lifelong | • University District Food Bank |
| • Catholic Community Services | • Low Income Housing Institute | • Washington State Department of Social and Health Services |
| • Chief Seattle Club | • Millionaire Club Inc. DBA Uplift Northwest | • Weld Seattle |
| • Elizabeth Gregory Home | • POCAAN | |
| • Entre Hermanos | • Real Change | |
| • Eritrean Association in Greater Seattle | • Recovery Café | |

Metro developed and implemented a memorandum of understanding with each Stakeholder Advisory Group member organization that called for the following actions.

- Attendance and participation in four to six meetings⁷⁴
 - Designated one or two staff and/or decision makers to participate in up to six 1.5-hour meetings during a six-week period between late September and November 2021
- Review materials, documents, and data and provide comments as needed in between meetings
- Advise and provide recommendations on:
 - Alternative fare collection systems
 - Improvements to the accessibility of ORCA products and/or the affordability of fares for priority populations
 - Future engagement and communication activities and strategies for public input

⁷³ Organizations were compensated at a rate of \$60 per hour for meeting participation and any materials reviewed outside of the meeting times.

⁷⁴ In the process of facilitating the engagement meetings, Metro and the Stakeholder Advisory Group agreed that three meetings were sufficient to complete the scope of work.

The Stakeholder Advisory Group ultimately identified the following barriers that their clients could face in a cashless on-board fare collection system:

- Difficulty navigating the fare system, including how to buy, use, replace, and reload ORCA.
- Lack of clarity and communication regarding eligibility for Metro’s reduced fare programs and enrollment options; concern around eligibility requirements.
- Prohibitive ORCA card purchase and replacement fees.
- Hesitancy among some riders to share information with Metro because they are unsure how it will be used. This is especially a concern for those who are undocumented.
- Fewer options for unbanked and underbanked. Without the option to pay cash on-board, many who don’t have access to their money digitally through an online banking account may not otherwise have a way to pay virtually.
- Low technological access and literacy. There are those who do not have the technological literacy necessary for regular use of digital bus fare payment. Stakeholders also noted that some of their clients do not have access to smartphones. Those that do can have limited data plans or have to share a single smartphone with multiple family members. Theft and loss of phones is also a constant concern among unhoused people.
- Lack of capacity to plan their fare payments ahead of time, particularly for those fleeing dangerous situations, such as domestic violence.
- Lack of relevant information in languages other than English.

The Stakeholder Advisory Group provided feedback on and ultimately recommended four fare collection alternatives to cash on-board. A summary of those recommendations is included in Section B of this report.

The following tables summarizes the content and themes of Metro’s three meetings with the Stakeholder Advisory Group.

Figure 11 - Stakeholder Advisory Group Meeting #1 (September 30, 2021) Summary

<p>Meeting Objectives</p>	<ul style="list-style-type: none"> • Stakeholder Advisory group members understand the purpose of the advisory group and their role in shaping the results • Stakeholder Advisory group gain an understanding of Metro policies and values • Stakeholder Advisory group gain an understanding of fare policy, products, and cost difference between cash on board and ORCA
<p>Key Feedback and Direction</p>	<ul style="list-style-type: none"> • Concern about cashless on-board fare payment system impacts on priority populations • Difficulty navigating the ORCA system, including how to buy, use, replace, and reload • Confusion about the enrollment process and qualifying eligibility for reduced fare programs; concern that not everyone who needs a reduced fare is eligible • Limitations of the paper-based Human Services Bus Ticket program; uncertainty about how ORCA-based system could work, including how to manage cards for a large numbers of clients • Concern about riders who do not have technological literacy, particularly those who primarily speak a language other than English

Figure 12 - Stakeholder Advisory Group Meeting #2 (October 7, 2021) Summary

<p>Meeting Objectives</p>	<ul style="list-style-type: none"> • Review key themes developed from prior meeting • Present learnings about cash paying riders • Present fare collection alternatives (vending machines, wearable fare media, retail network expansion, and limited-use tickets) for initial discussion • Allow Metro to continue to listen to needs, opportunities, barriers, and recommendations identified by the advisory group
<p>Key Feedback and Direction</p>	<p><i>Human Services Bus Ticket Program</i></p> <ul style="list-style-type: none"> • Program is still vital, but customers feel stigmatized using a human services ticket • Limitations of paper tickets include lack of access to other ORCA agencies <p><i>Positive Responses to Presented Alternatives</i></p> <ul style="list-style-type: none"> • Support the ability to purchase at a retail location and including social service agencies and other community locations like libraries in the network • Support offering ORCA services where people can access a variety of services • Like ability to purchase paper tickets or card at retail <p><i>Ideas for Improving Presented Alternatives</i></p> <ul style="list-style-type: none"> • Eliminate card fees • Provide in-language online card management • Extend the transfer window • Provide more “pop-up” and other community-based events <p><i>Other Barriers to Address</i></p> <ul style="list-style-type: none"> • Make it easier to replace lost cards • Address situations where a rider forgets their card or ticket before boarding • Develop paper tickets and passes, preferably multi-day • Lower the minimum load amount at retail network for ORCA (currently \$5) • Focus on riders who are not able to afford any ORCA card fee or fare

Figure 13 - Stakeholder Advisory Group Meeting #3 (October 21, 2021) Summary

<p>Meeting Objectives</p>	<ul style="list-style-type: none"> • Discuss alternatives to paper tickets and paper transfers • Recommend Prioritized Investments and Strategies • Develop an understanding of the next steps of this Project • Allow Metro to continue to listen to needs, opportunities, barriers, and recommendations identified by the advisory group
<p>Key Feedback and Direction</p>	<p><i>Use of mobile applications</i></p> <ul style="list-style-type: none"> • Smartphone access is a concern for many; many of the Stakeholder Advisory Group’s clients do not have access to smartphones; those that do may have limited data plans or share a family phone. • Theft and loss of phones is a particular concern for unhoused people • Advisory Group supports expansions to eligibility for the subsidized annual pass

	<p><i>Replacing paper ticket versions of Human Service Bus Ticket</i></p> <ul style="list-style-type: none"> • Some type of keychain or lanyard would work best for the un-housed population • The wristband would be easy to hold onto • A sticker on your ID card would be another option
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The following tables summarizes the content and themes of the Metro’s meetings with the Access Paratransit Advisory Committee (APAC), Transit Advisory Committee (TAC), and the Equity Cabinet.

Figure 14 – APAC (December 31, 2021), TAC (December 14, 2021), and Equity Cabinet (December 15, 2021) Meeting Summary

<p>Meeting Focus</p>	<p><i>APAC</i></p> <ul style="list-style-type: none"> • What attributes would a fare payment and collection system that is most accessible to riders with disabilities have? • What is most important for Metro to know about the transit experiences, needs, and desires of riders with disabilities, particularly regarding fares and fare payment? <p><i>TAC and Equity Cabinet</i></p> <ul style="list-style-type: none"> • How could Metro make non-cash fare payment and collection options more accessible for all riders? • What aspects of the fare system is Metro not considering that it should be? • Given limited resources, where would you most like to see Metro invest?
<p>Key Feedback and Direction</p>	<ul style="list-style-type: none"> • Continue conversation as Fares Forward progresses • Focus on fare subsidies for riders with disabilities, particularly those on Supplemental Security Income • Work with caregivers who often manage transit cards for their clients • Have the same ORCA features for all riders; is fundamental to an equitable system • Further explore fare affordability options and feasibility <p>Questions:</p> <ul style="list-style-type: none"> • How would the loss of a cash option affect riders who only use the bus every so often? • Will removing the cash on-board option push people who are not current transit users further away? • How will rider-operator conflict be eliminated without a cash on-board option? • Can ORCA be connected with EBT cards? • How can we ensure that the benefits of a future fare system do not accrue only to those who already have more resources and advantages? • How to increase the number and types of businesses that offer transit benefits? •

Staff met twice with a Stakeholder Advocacy Group consisting of representatives from the Transportation Choices Coalition, Transit Riders Union, and Seattle/King County Coalition on Homelessness.

Figure 15 –September 23, 2021 Stakeholder Advocacy Group Meeting Summary

<p>Meeting Objectives</p>	<ul style="list-style-type: none"> • Introduce proviso scope and receive feedback on community engagement plan • Understand advocacy organization concerns around cash fare payment
<p>Key Feedback and Direction</p>	<ul style="list-style-type: none"> • Concern that removing a cash on-board fare payment option is not equitable • Metro should ensure that focus remains on equitable access when considering alternative fare collection options

Figure 16 – December 14, 2021 Stakeholder Advocacy Group Meeting Summary

<p>Meeting Objectives</p>	<ul style="list-style-type: none"> • Recap proviso community engagement • Share fare collection system alternatives • Discuss potential interventions for improving access to fare system for priority populations
<p>Key Feedback and Direction</p>	<ul style="list-style-type: none"> • Concern that removing a cash on-board fare payment option is not equitable • Significant barriers exist for eligible riders, particularly the unhoused community and undocumented riders, to enroll in subsidized annual pass • Alternatives to requiring proactive enrollment – potentially cross-referencing with other benefits databases. It can be difficult to maintain state benefits, which are required for subsidized annual pass eligibility • Discussed online ORCA management for Community Based Organizations, the former downtown fare-free zone, fare capping, and locating vending machines in culturally relevant places

D. Options and cost estimates for potential fare collection alternatives, including continuing current fare collection methods and replacing fare boxes on buses

Cost Estimates – Continuing Current Fare Collection Methods

ORCA Operating and Capital Budgets – King County’s Share of ORCA Fare Revenues

The ORCA Joint Board, the governing and policy-setting body for the ORCA system, adopts an annual operating budget for expenses related to the centralized management of the ORCA system. Each participating agency’s share of the operating budget, known as the “operating share,” is based on that agency’s ORCA ridership from the previous year. Due to the significant decrease in overall ridership and the inconsistent imposition of fare-free periods across all participating ORCA agencies during the COVID-19 pandemic, the ORCA Joint Board agreed to support use of 2019 ridership to calculate the 2022 capital shares and amounts allocated to each agency.

Figure 17 - ORCA Operating Budget & King County Capital Share (2018-2026)

Year	Total ORCA Operating Budget	King County Capital Share	King County Total
2018	\$11,607,189	63.12%	\$7,326,458
2019	\$11,632,915	61.95%	\$7,485,947
2020	\$12,688,882	61.34%	\$8,172,399
2021	\$13,992,157	60.97%	\$8,531,018
2022	\$21,556,164	60.97%	\$11,884,430
2023 (Forecast)	\$15,736,914	TBD	TBD
2024 (Forecast)	\$18,629,203	TBD	TBD
2025 (Forecast)	\$20,012,829	TBD	TBD
2026 (Forecast)	\$20,612,628	TBD	TBD

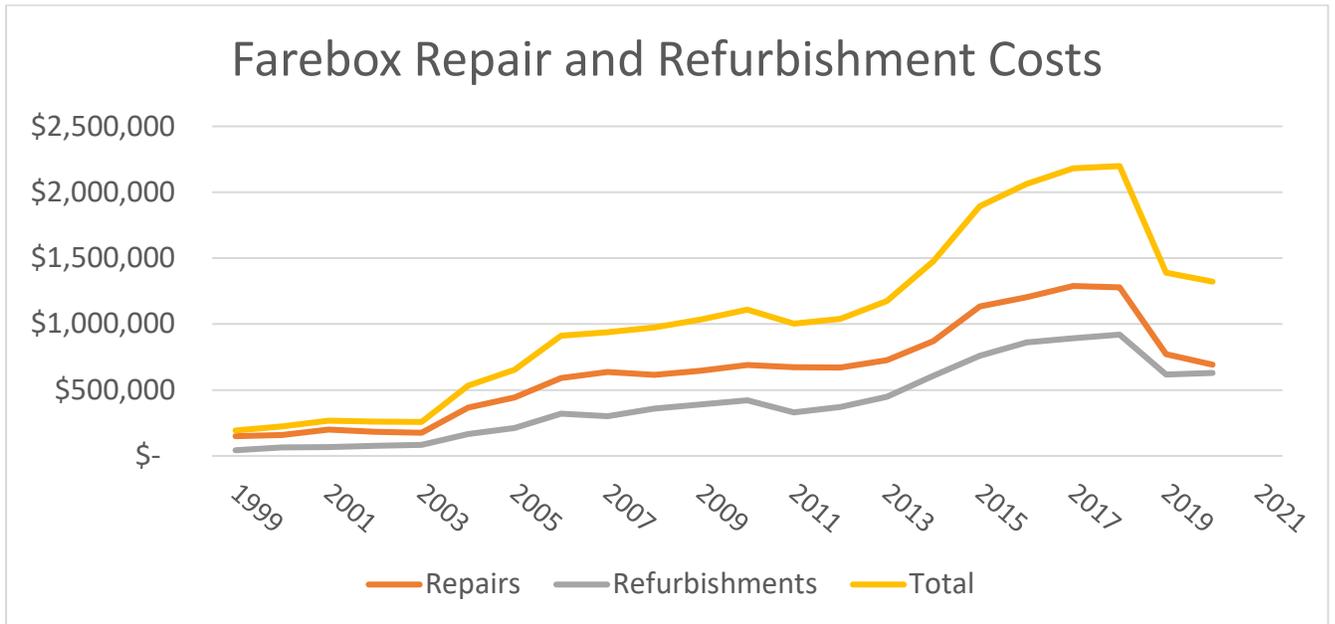
In 2016, the ORCA Joint Board approved a capital budget totaling \$85,837,600 for the development and implementation of the new ORCA System. The total share for King County to implement new ORCA between 2016-2023, is over \$37 million, which is in addition to the costs noted in Figure 17.

Fareboxes on Metro Buses

Analysis of repair and refurbishment expenditures over the last twenty years indicates that Metro currently spends close to \$2 million annually on labor and other costs to repair and refurbish CENTSaBILL fareboxes. Repair figures represent routine maintenance or response in the field by mobile mechanics to resolve farebox jams while still installed on the coach. Refurbishment costs are for more complicated repair and refurbishment once the farebox has been removed from the coach and transported to the Component Supply Center.

Farebox refurbishment expenditures and the volume of their activity relates directly to the number of coaches retired or purchased in Metro’s fleet plan. As coaches are retired, their fareboxes are removed, refurbished, and stored for installation on new coaches. Vehicle Maintenance also maintains additional, already refurbished fareboxes ready to swap onto coaches returning to base for repair.

Figure 18 - Farebox Maintenance & Refurbishment Costs (1999-2021)



Vehicle Maintenance has indicated that it can sustain farebox refurbishment with current stores of farebox shells and components through 2024. If farebox refurbishment is to continue beyond 2024, additional parts and resources may be needed.

Revenue Processing Center

Metro expends, on average, close to \$1 million annually to maintain the cash processing and counting services provided by the Revenue Processing Center.

Fare Enforcement

Metro’s 2021-2022 biennial budget includes approximately \$5 million for fare enforcement.

Paper Transfers

Based on budgeted amounts for printing and estimated staff time, Metro spends approximately \$212,000 annually to produce paper transfers.

Paper Tickets

Metro budgets \$17,000 annually to produce paper Human Services and Free Ride tickets.

Transit GO Ticket

Metro pays Bytemark approximately \$132,000 per year for hosting the Transit GO Ticket platform as well as a 1.5 percent commission on all sales, or approximately \$36,000 on \$2.4 million in sales in 2021.

In total, the estimated costs for the current fare collection system totals approximately \$17 million per year, including the costs of fare enforcement.

Cost Estimate – Replacing Fareboxes on Buses

Based on a 2020 quote for the new “FastFare” model farebox, the per unit cost is approximately \$18,000, including tax. Assuming an order of 1,500 fareboxes to outfit all of Metro’s buses, the total cost, including labor, would come to approximately \$27 million. Purchasing new receiver vaults at a cost of \$125,000 per unit with two vaults at each of Metro’s seven bases would add approximately \$1.75 million, for a total capital cost of approximately \$29 million. These cost estimates do not consider the ongoing impact of inflation nor the possibility of long-term supply chain interruptions.

A Metro purchase of new receiver vaults would incur additional costs to remove the old vaults, recycle them as scrap metal, and install the new vaults. An alternative to purchasing new receiver vaults would be to modify existing vaults to accept cash from and fit with the new FastFare cashboxes. The modification option would amount to \$196,000 for the existing vaults at all seven bases. In 2028, Metro plans to open an eighth base which will require two additional receiver vaults at a total cost of \$250,000.

While the retrofitting option may save resources, each of the 35-plus year-old receiver vaults will have varying site and upgrade challenges. If Metro chooses to modify existing vaults, it would be the second time the vaults will have been substantively overhauled to function as needed. Retrofitting will require electricity and communications modules that may not function as well as purchasing new vaults designed to work in tandem with new fareboxes.

Cost Estimates – Potential Fare Collection Alternatives

The Stakeholder Advisory Group considered and recommended the following fare collection alternatives. Section B features a more in-depth discussion and analysis of these options. Section C summarizes other themes from the stakeholder engagement related to this proviso.

Retail Network Expansion

The number of outlets within the ORCA retail network will roughly double with the introduction of New ORCA, expanding to include new retailers such as 7-11 and Bartell Drugs, in addition to current retailers like Safeway and QFC. Under the new ORCA system, the ORCA regional network will pay a fixed fee to Ready Credit Corporation to manage the retail network system, regardless of the number of retail outlets. ORCA will also pay Ready Credit Corporation 3 percent of total retail network sales and \$1.25 per ORCA card sold, while the retailer at which the purchase is made will receive 2.5 percent of their sales and \$0.75 per ORCA card sold. Metro’s share of these ORCA costs is based on the proportion of total ORCA revenue it received the previous year; for 2022, that share is 61 percent.⁷⁵ In 2021, ORCA

⁷⁵ In 2021, ORCA’s Joint Board agreed to use 2019 ridership to calculate the 2022 capital shares and allocations to each agency due to inconsistencies in ride-free periods at the beginning of the COVID-19 pandemic.

purchases at retail network locations totaled \$4,812,697. Under the terms outlined above, Metro would pay Ready Credit Corporation 61 percent of 3 percent of this figure, which equates to \$88,072, in addition to \$0.76 per ORCA card sold (61 percent of \$1.25) and the fixed fee.

Vending Machines

Metro is purchasing 15 vending machines as part of implementing new ORCA. The machines produce RFID-enabled, new ORCA cards after receipt of cash or credit/debit card payments are made. The price per machine depends on the quantity purchased but ranges between \$40,000 and \$50,000. In addition to the per unit costs for each machine, installation, communications conduit, and electrical wiring must be added to derive a total cost. Because each location has different challenges and a fluctuating real estate market affecting siting costs, site costs can vary significantly. Initial estimates for site costs, power and installation for Metro’s new vending machines average up to \$80,000 per location, almost tripling the purchase price of each machine.⁷⁶

Wearable Fare Media

Wearable RFID devices, similar to a “Fitbit” wristband, are an option for fare media that can respond to card security concerns for some customers and can be an attractive marketing and promotion tool. The computer chips required to be a credential in the new ORCA system can be placed in different “containers,” not just plastic cards. Wearable RFID devices can be made to hang from a lanyard or as a wristband, a ring, or stickers that can be affixed to cards. System development costs to introduce wearables in the new ORCA system are expected to be minimal. The costs for this potential feature should be limited to the acquisition of chips and the production of the wearable itself.

Limited Use Ticket

Chip-enabled paper or “limited use” tickets are a fare media offered on other transit agencies such as TriMet in Portland, OR. These tickets could be issued from vending machines, by ORCA agency pass sales outlets, or by community-based organizations. To offer limited use tickets, Metro would need to retrofit vending machines and configure the composition and production of the paper ticket itself. Because the new ORCA system already supports this function, developing a limited use ticket would not have significant system development costs; however, ORCA agencies would have to prioritize and agree to fund the addition of limited use fare media in future phases of new ORCA.

E. An identification of potential cost savings from each fare collection option, including transitioning to contactless fare collection, and how those savings could be reinvested in improving the accessibility or affordability of fares for priority populations

For this section, “cost savings” is defined as a reduction in the cost of fare collection compared with Metro’s current fare collection system.

Transition to Contactless Fare Collection

Because Metro’s current farebox stock has surpassed the end of its useful life, a future fare collection system in which cash is no longer accepted on-board buses would allow Metro to avoid a capital outlay of approximately \$29 million to replace them. In addition, Metro would likely save a portion of the \$1

⁷⁶ “King County Metro, 30% Design Construction Project Estimate,” January 7, 2022.

million spent annually to count cash at the Revenue Processing Center and the approximately \$2 million spent annually on farebox maintenance and refurbishment costs.

Retail Network Expansion

An expansion of the ORCA retail network would not reduce the cost of Metro's fare collection system.

Vending Machines

The installation of additional vending machines would not reduce the cost of Metro's fare collection system.

Wearable Fare Media

The development of wearable fare media would not reduce the cost of Metro's fare collection system.

Limited Use Tickets

The introduction of limited use tickets would not reduce the cost of Metro's fare collection system.

How Those Savings Could be Reinvested in Improving the Accessibility or Affordability of Fares for Priority Populations

Investment Opportunities Identified from Affordability and Access Studies

Metro has completed a series of reports that contain recommendations to address affordability and access barriers for priority populations. Many of these recommendations were ultimately implemented, such as an increase in the Human Services Bus Ticket Program subsidy and the launch of a fully subsidized pass that enhances the 2015 ORCA LIFT program. A full list of these recent reports, recommendations and follow-up actions is attached to this report as Appendix D.

Opportunities for Investment in Improving the Accessibility or Affordability of Fares for Priority Populations

Metro has developed a suite of investment opportunities which take varied approaches toward improving the accessibility and affordability of fares for priority populations. Some strengthen program infrastructure that will simplify the enrollment process for priority populations. Others adjust fare policy or modernize existing reduced fare programs to lower barriers preventing priority population riders from taking full advantage of the fare system.

Transit accessibility and affordability are hampered by issues that Metro cannot solve on its own, including income inequality, regional poverty, and language, financial, and technological barriers. Access to transit is essential to help move people out of poverty and support changing economic and health outcomes. The success of any of the following investment opportunities hinges on sustained effort, funding, and regional cooperation among the many agencies, authorities, and bodies that regulate transit and transportation policy. How well Metro collaborates with stakeholders will directly impact the effectiveness of each solution. The investment opportunities outlined below are presented in three groups, each representing different approaches toward improving fare accessibility and affordability for priority population riders. Each is responsive to a need or barrier identified through the engagement process.

Implementation varies significantly among these options. Some options are entirely within the control of King County and can be accomplished without outside approval; others would require the approval of the ORCA Joint Board, modifications to existing agreements, or participation by other regional partners such as the Regional Reduced Fare Permit Task Force. Figure 19 at the end of this section summarizes the policy changes and inter-agency approvals or coordination that would be required for implementation. The table also includes the four fare collection alternatives discussed in previous sections. Metro remains committed to working within the ORCA network, the Regional Reduced Fare Permit Task Force, and the transportation agencies in the Puget Sound region to develop fares and fare systems that are regionally adopted.

Building Capacity to Better Serve Priority Population Riders

Throughout the engagement process for this proviso, Metro consistently heard that priority population riders have difficulty navigating the fare system, including how to buy, use, replace, and reload ORCA, and lack clarity regarding the eligibility criteria and enrollment process for reduced fare programs. The Stakeholder Advisory Group also supported expanding the eligibility criteria for reduced fare programs to include more riders for whom fares are unaffordable. The investment options below would build the capacity of Metro's current reduced fare programs to reach more riders through increased outreach, more enrollment locations, and better integration of enrollment systems.

- **Increase ORCA LIFT Outreach and Enrollment.** ORCA LIFT enrollment has fallen by 33 percent since the start of the COVID-19 pandemic. Factors contributing to this decline include ORCA LIFT users allowing cards to expire without renewing and challenges such as closures and staffing shortages faced by the agencies that participate in the ORCA LIFT enrollment network during the pandemic. Additional funding or staff could be used to better understand the opportunities and challenges of existing enrollers and to strengthen, resource, and grow new members of the network. Targeted communications to potential ORCA LIFT riders could help regain lost cardholders while connecting new customers to Metro's reduced fare programs. If this investment is made, it would require a simultaneous investment in an update for the ORCA LIFT infrastructure to support the additional enrollments (see bullet below).
- **Update Outdated ORCA LIFT Infrastructure.** Metro and ORCA LIFT enrollment agencies rely on outdated technology that operates outside of the ORCA system. As a result, each ORCA LIFT enrollment requires multiple manual transactions by Metro staff members and at each enrollment site. Any significant increase in ORCA LIFT enrollment will require investing in updates to further integrate the administration of ORCA LIFT with new ORCA so that it is less reliant on manual processes.
- **Expand Network of Enrollers for ORCA Youth and Regional Reduced Fare Permit.** In the 2020 Reduced Fare ORCA Card Procurement Locations Implementation Plan,⁷⁷ Metro proposed creating a reduced fare enrollment network of agencies who would help individuals apply for multiple types of reduced-fare ORCA products. Metro could implement this in a phased approach, starting with agencies experienced in eligibility verifications and that serve customers likely eligible for reduced fares (for example, the ORCA LIFT enrollment network). Once

⁷⁷ [Motion 15681](#)

established, Metro could expand to include senior centers, community centers, youth centers, and libraries. The launch of the network would require funding and staffing investments. In future phases, Metro could explore expansion opportunities to allow for more equitable access to reduced fare programs at these network locations. Such action would require agreement from the transit agencies who are parties to regional interlocal agreements for ORCA and the Regional Reduced Fare Permit Task Force.

- **Launch ORCA Youth Through Schools Program.** Also proposed in the Reduced Fare ORCA Card Procurement Locations Implementation Plan,⁷⁸ the ORCA Youth Through Schools Program could engage school districts and local jurisdictions in launching a comprehensive transit education program to grow the next generation of transit riders. Metro would work to identify the resources and strategy needed to support this program, prioritizing delivery to the schools and districts with highest need.⁷⁹
- **Enhance Neighborhood Pop-Up Program.** Expanding the number and frequency of Neighborhood Pop-Up events would expand educational opportunities and local community access to Metro customer service and support. Feedback from riders suggest a desire to locate ORCA purchasing and application locations in their own communities, such as libraries, community centers, and senior centers. Expansion of Neighborhood Pop-Up events would improve the customer experience during the transition to new ORCA by having a local network where customers can reliably find Metro help and ORCA sales venues.

As of the first quarter of 2022, in-person Neighborhood Pop-Up events are suspended in compliance with COVID-19 public gathering restrictions. During the pandemic, Metro has offered a virtual pop-up series. In-person neighborhood pop-up events are scheduled to return in the third quarter of 2022.

- **Integrate Access Paratransit Enrollment with Other Programs.** Although all riders who qualify for Access Paratransit also, by definition, qualify for a Reduced Regional Fare Permit (RRFP)– Disability pass, the enrollment processes for both programs remain separate and require multiple trips to physical locations for which the enrollee is financially responsible. Implementing an automatic enrollment in RRFP would significantly reduce the burden on applicants. Similarly, screening Access Paratransit applicants for subsidized annual pass eligibility increases the likelihood that applicants could receive transit benefits that they would not have otherwise considered or for which they may not have been aware that they are eligible.

In addition to the educational, access, and integration items noted above, Metro could also invest additional resources in service frequency and reliability. Metro’s Rider/Non-Rider survey indicates that priority population riders prioritize improved service frequency and reliability over fare discounts.⁸⁰ One of the simplest and most fundamental ways Metro can improve transit accessibility is to provide frequent and reliable service, competitive with other modes, for those that need it most. Investments could be made on those routes that serve areas with the highest density of priority populations.

⁷⁸ [Motion 15681](#)

⁷⁹ This report was drafted before the state legislature approved legislation related to youth fares.

Fare Products and Fare Media

During the engagement process, social and human service providers identified several limitations of the current Human Services Bus Ticket Program. The following investments would give such agencies a greater ability to facilitate their clients' full use of the ORCA system, make it easier to buy tickets in bulk to distribute, and would potentially provide discounted pass products that best suit the needs of the populations with which they work.

- **Expand Human Services Bus Ticket Program to ORCA.** In 2021, Metro and Sound Transit conducted an initial demonstration project to test the feasibility of expanding the Human Services Ticket Program to include ORCA-based products. Metro plans to expand and launch the next phase of the pilot using the new ORCA system in late 2022. Results of this phase will inform further expansions that would provide increased access for human service organizations, enabling them to provide ORCA-based transit tickets to their clients. Expansion beyond the 2022 extended demonstration would require staff and infrastructure investments and possibly an increase in Metro's authorization for foregone revenue to the program (currently \$4 million per year). Agreements would also be needed with Sound Transit or other ORCA agencies who may want to join the program.
- **Expand Pre-Paid, Bulk Purchase Fare Options.** Currently, there is no simple pathway to sell ORCA products in bulk to community agencies, private companies, or jurisdictions. (Metro's Passport and Choice Programs sell ORCA products to employers who purchase them on a contract basis for their employees as a benefit of employment.) Metro could develop and implement alternative bulk purchase products. Further examination is needed to understand potential markets for bulk purchases, fare types, and implementation options.
- **Create New ORCA Fare Products.** Currently the only available retail ORCA pass products are single-day or monthly passes. Introducing more discounted flexible regular and reduced-fare pass products—such as a 10-trip multi-ride pass, 3-day pass, or weekly pass—would further encourage a shift to ORCA and allow less frequent or price-sensitive riders to take advantage of volume discounts without needing to invest in a pass. Metro would prioritize coordination with ORCA partners to ensure that new pass products are seamlessly integrated into the regional fare payment system.

Fare Policy Modifications

Changes to fare policies can have a substantial impact on improving the accessibility and affordability of fares for priority populations. Consideration of fare capping—a policy drawing interest from agencies around the country and described in more detail below—would represent a substantial change in the way Metro riders pay for fares. This change would directly benefit priority population riders. Adjusting the eligibility criteria or enrollment process for ORCA LIFT would facilitate more enrollment and help Metro better serve riders for whom fares remain unaffordable.

- **Fare Capping.** Fare capping would give ORCA-using riders the price advantage of an unlimited ride pass without requiring advance purchase. Fare capping automatically limits the amount paid within a given period (e.g., a day, week, or month) to cost as much as an equivalent pass

product.⁸¹ With fare capping, riders gain access to the benefits of a monthly pass on a ride-by-ride basis instead of paying the entire cost upfront. Instituting fare capping would require agreement amongst other ORCA agencies on how to apportion fare revenue.⁸² It may also require policy guidance or changes to be made by the ORCA agencies' governing boards. While agencies could lose some fare revenue from previously underutilized passes, the possible savings that a rider could achieve through fare capping would make ORCA more attractive. The development costs are uncertain but could be significant due to the complexity of the ORCA system's fare tables, intersystem transfer discount rules, and fare revenue apportionment rules. Any changes affecting regional fares policy would require the approval of the ORCA Joint Board.

- **ORCA LIFT Eligibility Criteria.** ORCA LIFT serves approximately 14 percent of the total eligible King County population and about 38 percent of eligible riders. There are still significant numbers of riders for whom any fare is unaffordable. Metro could work with the ORCA Joint Board to consider modifications to ORCA LIFT policy, such as the income eligibility threshold, how income is certified, and the amount of time between required verifications, to better align with regional affordability measures and to reach more riders for whom cost is a barrier to transit. The Stakeholder Advisory Group convened to inform this proviso report indicated that expanding the pool of riders eligible for ORCA LIFT should be a priority for Metro. Any changes to ORCA LIFT eligibility criteria would require the approval of the ORCA Joint Board and an amendment to King County Code.
- **Subsidized Annual Pass.** Metro launched the ORCA LIFT subsidized annual pass in 2020 as a new option for riders who cannot afford ORCA LIFT. Metro will present annual reports to the King County Council on the program's efficacy. Changes to program eligibility⁸³ or enrollment options requires approval of the participating transit agencies (currently Metro, Sound Transit, Seattle Department of Transportation, and Seattle Center Monorail) and consideration of administrative capacity at human service enrollment sites. Due to the labor-intensive nature of administering a pass program, significant investments in the program's administrative and partnership infrastructure would be necessary before any expansion could be considered cost-effective.

⁸¹ For example, if a monthly pass is \$50, and a single ride is \$2.75, a rider would pay \$2.75 for each individual ride taken until they reach \$50 paid in a single month, at which point they would no longer be charged for rides until the next month begins.

⁸² Individual agencies within the ORCA system could also agree by themselves or with other agencies to implement fare capping.

⁸³ Currently, subsidized annual pass eligibility is tied to residence in King, Pierce, or Snohomish County and current enrollment in one of six specific state benefit programs that have income thresholds at or below 80% of the federal poverty level.

Figure 19 - Summary of Investment Opportunities and Regulatory Considerations

Fare Collection Alternative or Investment Opportunity	Policy Change	ORCA Joint Board Approval or Coordination	Other Network or Agency Approval or Coordination ⁸⁴
Expanded Retail Network	Yes, dependent on whether retail location criteria in contract with Ready Credit Corporation requires amendment to facilitate addition of non-retail locations such as libraries or community centers	Yes (Coordination)	No
More Vending Machines	No	Yes (Coordination)	No
“Wearable” Fare Media	No	Yes (Coordination)	No
Limited Use Tickets	No	Yes (Coordination)	No
Update Outdated ORCA LIFT IT Infrastructure	No	Yes (Approval [Budget])	Public Health - Seattle & King County (Coordination)
Increase ORCA LIFT Outreach and Enrollment	No	No	Sound Transit and Public Health - Seattle & King County (Coordination)
Expand Network of Enrollers for ORCA Youth and Regional Reduced Fare Permit	Yes, amendment to RRFPP interlocal agreement depending on scope of expansion of RRFPP	Yes (Coordination)	Regional Reduced Fare Program Task Force (Approval or Coordination depending on scope of expansion)
Launch ORCA Youth Through Schools Program	No	Yes (Coordination)	No

⁸⁴ For example, changes to the Regional Reduce Fare Permit products that Metro offers would require the approval of the Regional Reduced Fare Permit Task Force.

Fare Collection Alternative or Investment Opportunity	Policy Change	ORCA Joint Board Approval or Coordination	Other Network or Agency Approval or Coordination⁸⁴
Additional Service Frequency/Coverage	Yes	No	Sound Transit (Coordination)
Enhance Neighborhood Pop-Up Program	No	No	No
Integrate Access Paratransit Enrollment with Other Programs	No	No	RRFP Network (Coordination)
Human Service Bus Ticket ORCA Program	Yes, amendment to King County Code to change Human Service Ticket budget allocation	No	Sound Transit, King County Dept. of Community and Human Services (Coordination)
Expand Pre-Paid, Bulk Purchase Fare Options	No	Yes (Coordination)	No
Create New ORCA Fare Products	No	Yes (Approval or Coordination, depending on new product scope)	Yes, if new fare products include other agencies (Approval)
Fare Capping	Yes, ORCA fare allocation policy	Yes (Approval [Policy and Budget])	No
ORCA LIFT Eligibility Criteria	Yes, King County Code	Yes (Approval)	Public Health - Seattle & King County (Coordination)
Subsidized Annual Pass Policies	Yes, King County Code	Yes (Coordination)	Sound Transit, Seattle Department of Transportation, Seattle Monorail Services, Washington State Department of Social & Health Services, and Public Health - Seattle & King County (Approval)

F. Discussion of policy changes necessary to implement the identified options for potential fare collection alternatives.⁸⁵

No policy changes would be necessary to implement the fare collection alternatives considered by the Stakeholder Advisory Group, including wearable fare media, an expanded retail network, additional vending machines, and limited use tickets. Neither the King County Code, Metro Connects, nor the ORCA System Interlocal Agreement contain rules, policies, or regulations that require or prohibit Metro from issuing or accepting any specific type of fare media. However, because ease of travel and consistency between transit systems are priorities for the ORCA network, Metro would benefit from supporting a regional approach to adopting new fare media.

V. Next Steps

Recent updates to Metro Connects reaffirmed Metro’s intention to move toward a cashless on-board fare collection system. Given that the current farebox repair and refurbishment program can continue for several years, Metro has an opportunity to make proactive investments in its fare collection and payment systems that advance affordability and accessibility for priority populations prior to any major changes to on-board cash fare payment.

Metro recognizes that a future transition to a cashless on-board fare collection system would have significant impacts to members of its rider community. Metro commits to continue working with riders who pay cash and priority populations who would be disproportionately affected by the loss of a cash on-board option. In partnership with community, Metro will pursue incentives, investments, and policy changes that make it easier for all riders to maximize the financial, mobility, and convenience benefits of using transit.

The transmittal of this report coincides with ongoing regional conversations about fare enforcement, affordability, and structure, as well as the launch of the region’s new ORCA system. While this report focuses specifically on Metro’s fare collection system, improving the equity, affordability, and accessibility of fares is part of ongoing regional discussions about rebuilding ridership, investing where needs are greatest, and prioritizing a seamless regional fare payment system for all riders. In doing so, Metro will incorporate other regional efforts such as fare enforcement reform and the upcoming launch of new ORCA.

Using the community engagement conducted for this proviso report as a foundation, Metro will continue working to respond to concerns and address barriers identified by stakeholders, riders who pay cash, and priority populations. These efforts will take a comprehensive approach to improve the equity, affordability, and accessibility of Metro’s fare system while continuing to prioritize a seamless regional fare payment system for riders.

⁸⁵ The proviso to which this report responds specifies that this section focus only on policy changes required to implement the fare collection alternatives considered by the Stakeholder Advisory Group and not for the opportunities for investments in the affordability and accessibility of fares outlined in Section E. A summary of policy changes that would be required to implement those investment opportunities is in Figure 19.

Future work will include:

- Continued coordination and engagement with riders who pay cash and priority populations to identify barriers, develop ideas, analyze results, and focus on improving access to Metro’s fare system.
- Development, implementation, and ongoing analysis of incentives, investments, and policy changes to encourage more riders to use digital fare media.
- Incorporation of new ORCA, Fare Enforcement (SaFE) Reform, implementation of all-door boarding, subsidized annual pass evaluation, and other developments into Metro’s fare policies, programs, and procedures.
- Establishment of a baseline of metrics, benchmarks, and best practices from which to monitor the effectiveness of Metro’s interventions and identify trends.

Metro will also continue to monitor future implications for Vehicle Maintenance, Bus Operations, Capital Planning, Mobility, Transit Facilities and Strategic Communications. Metro’s Vehicle Maintenance and Bus Operations Divisions will take the following steps to ensure that the current refurbishment program for Metro's stock of CENTSaBILL fareboxes can continue:

- Inventory all farebox components and related parts in consideration of Metro’s fleet plan, coach retirement, the 2024-2026 and 2027-2028 bus buys to ensure that enough refurbished fareboxes are available until the date to end cash collection is determined.
- Calculate budget and labor needs for the Component Supply Center to continue farebox refurbishment beyond 2024.
- Develop procurement and storage strategies for wearable parts to support Metro’s continued farebox refurbishment practice.
- Track the frequency of farebox breakdowns and how often they can be repaired in the field or when they result in a route not collecting cash fares.

VI. Appendices

- A. Fare Collection Systems Proviso Engagement Summary
- B. Existing and Planned ORCA Retail Network Locations in King County
- C. Existing and Planned Vending Machines
- D. Summary of Recent Metro Reports, Recommendations, and Subsequent Actions
- E. Transit Payment Decisions in King County, WA and the Role of Cash
- F. Cash Rider Study Materials
- G. ORCA Fare Types, Eligibility Requirements, and Purchasing Locations



King County
METRO

Moving forward together

**“The Future of Metro’s Fare Collection Systems”
ENGAGEMENT SUMMARY**

December 2021

Appendix A – Fare Collection Systems Proviso Engagement Summary

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Appendix A – Fare Collection Systems Proviso Engagement Summary

Executive Summary

In response to a proviso¹ from the King County Council related to Metro’s system, Metro has begun to study the potential effects of a transition to a fare collection system where cash is not accepted to pay fare on-board transit. The proviso effort included an overview of the current fare collection system, identification of fare collection system alternatives, impacts on cash riders, and potential mitigation strategies. As part of this effort, Metro engaged with a Stakeholder Advisory Group representing priority populations that could experience disproportionately adverse impacts if cash is only accepted as fare off-board buses.

Topics that Metro sought to receive feedback and direction on included:

- Identification of priority populations who would be most likely to experience adverse impacts from a transition to a cashless on-board fare payment system
- Feedback and recommendations on potential alternative fare collection systems
- Recommendations on how to structure and implement engagement with priority populations about fare collection

The input, feedback, and recommendations from the Stakeholder Advisory Group responded to the following prompts in the proviso:

“A description and recommendation of fare collection system alternatives based on feedback from stakeholders serving priority populations.

Recommendation of fare collection system alternatives based on feedback from stakeholders serving priority populations; and

The proviso response is due to the King County Council on March 25, 2022, with a goal for completed work with the Stakeholder Advisory Group by late November 2021.

Equitable Engagement Practices and Impact of COVID-19

The COVID-19 pandemic and public health guidelines restricting in-person meetings and gatherings affected engagement activities. Metro adhered to Washington State’s mandates restricting in-person meetings, events, and gatherings since March of 2020.

Without the option to gather in person for meetings, focus groups, at community events and gatherings, engagement and outreach moved to digital and virtual platforms which has affected the breadth, depth, and number of community members reached.

Like Metro, most community-based organizations (CBOs), community gatherings, and other services have moved online, making the transition to virtual meetings mostly possible. Utilizing the stakeholder interviews and conducting virtual focus groups (with organizations that serve those with less access to

¹ Ordinance 19210¹, Section 113, Transit, P4; “The Future of Metro’s Fare Collection Systems”

Appendix A – Fare Collection Systems Proviso Engagement Summary

digital and virtual platforms), provides an opportunity for Metro to understand the needs and concerns of priority populations and to inform current and future engagement activities.

Background

[Metro Connects](#) envisions an equitable, easy-to-use fare program that improves the boarding experience and reduces trip times for everyone, from frequent customers to visitors. The envisioned fare program might provide new ways to pay, make it easier for people who pay their fare with cash to use digital payment options, add more ORCA partners, and better ensure that each user pays the right fare—including income-based fare options.

Metro has begun to study the potential effects of a transition to a fare collection system in which cash is not accepted for fare payment on-board transit. To move towards a system without cash payment on-board buses, paper tickets, and paper transfers, Metro will need to ensure that customers can purchase fare products with cash through an expanded retail network and other off-coach payment options. This will speed boarding and ensure cash customers can still use the system without paying more than the necessary fare.

Metro's current fareboxes are near the end of their useful life and the manufacturer has stopped producing them. Replacement of these outdated fareboxes with a new model would constitute a significant capital investment estimated to be at least \$29 million across the entire fleet. Metro's current practice of maintaining and refurbishing fareboxes continues.

On-board cash fare payment takes more time on average than payment with contactless fare, which can negatively affect speed and reliability. The use of cash and paper transfers also elevates the risk of fare disputes and adds to Metro's operating costs.

Operations and trends that move riders away from paying with cash on-board include the following.

- Metro's RapidRide system lets passengers at some stations pay fares off-board and allow boarding the bus through any door.
- The ORCA Passport business program has greatly expanded the number of ORCA riders.
- Metro's ORCA LIFT program, introduced in 2015, offers a reduced fare pass for riders at or below 200% of the federal poverty level and is only available on ORCA.
- Metro's subsidized annual pass program, introduced in 2020, offers an annual transit pass for riders at or below 80% of the federal poverty level who are enrolled in at one of six state benefit programs.²
- Metro is working with ORCA partners to develop the new ORCA system, making ORCA fare payment more convenient for customers.

Fare Collection Systems Goals

1. Improve mobility for priority populations as defined by the Mobility Framework, centering on Black, Indigenous and people of color, linguistically diverse communities, immigrants and refugees, people

² The six programs are Temporary Assistance for Needy Families (TANF)/State Family Assistance (SFA), Refugee Cash Assistance (RCA), Aged, Blind, or Disabled Cash Assistance (ABD), Pregnant Women Assistance (PWA), Supplemental Security Income (SSI), and Housing & Essential Needs (HEN).

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living with disabilities, and people with low or no income. Ways to improve mobility options for priority populations include:

- Increased accessibility to community assets
- Increased accessibility to jobs, especially family wage jobs
- Increased access to frequent service

2. Meeting [Metro Connects](#) goals.

- Speed and Reliability: Reduce delay by making bus boarding easier and fare payment faster.
- Innovation and technology: Make fare payment easier.
- Speed up fare payment through fare simplification: All-door boarding, offboard fare collection at more stops, a “proof of payment” system, and efforts to increase ORCA and other non-cash fare payment.
- Explore opportunities to enable customers to pay fares for all services used in a trip: Using parking, bikeshare, and carshare providers and Transportation Network Companies in real time with a single medium, such as a smartphone.
- Plan for changes that encompass the full range of Metro mobility services: Fixed-route, flexible service, ridesharing, and accessible services.

3. Equitably inform, engage, and empower current and potential customers.

- Employ a co-creative and equity-focused approach to planning and decision making.
- Evaluate process and project using an Equity Impact Review (EIR).

Engagement Outcomes Overview

Metro values input from historically un(der)served communities, including those affected by racism, bias, poverty, limited-English proficiency, disability, and/or immigration status. We reached out to a diverse range of community-based organizations that primarily serve priority populations using approaches that intended to provide participants with meaningful ways to engage and influence the decision-making process.

Key Messages Conveyed Through the Engagement Process

Metro has upcoming decisions to make regarding investments in fare collection systems and is seeking priority population input regarding proposed fare alternatives to cash collection on-board. Fare revenue is a key pillar of Metro’s financial structure. Metro’s fund management policies, which are adopted by the King County Council, require Metro to maintain a farebox recovery ratio of at least 25 percent, with a target of 30 percent. This means that Metro strives to cover at least 25 percent of its operating costs with fare revenue.³

Metro takes an income-based approach to fares, offering reduced fares for riders with low incomes, seniors, riders with disabilities, and youth, while asking those who can afford to pay to do so. Metro recently introduced a fully subsidized pass that is free for riders at the lowest income levels. Metro is continuously examining how to increase access to transit and these programs are rigorously evaluated to inform how to best serve members of the community with financial need.

³ This policy was suspended for the 2021-22 biennium in response to the COVID-19 pandemic ([Ordinance 19206](#))



What We Heard: Overall Key Themes and Needs

Through input and discussions with the **Stakeholder Advisory Group**, the following themes and concerns, and solutions emerged.

Concerns Raised Specific to Going Cashless on Board

- Access to smartphones is not universal, limiting some riders' access to purchasing fare digitally.
- The lack of technological literacy among various sections of the population is a large concern.
- Unbanked and underbanked riders would have fewer options to pay.
- The process for qualifying for reduced fares is lengthy and can be inaccessible to some.
- Fare affordability for some riders, even with options to subsidize.
- Those who are fleeing high-risk situations, such as domestic violence, face additional potential danger if they are not able to plan ahead to pay without cash on board.
- The lack of trust among some in sharing identifying information with King County could prevent riders from utilizing alternative forms of fare payment.
- Occasional riders, tourists, and other visitors may not find benefit in using ORCA for fare payment.
- Lack of English proficiency and/or linguistic diversity could limit some riders from accessing digital forms of fare payment.
- Going cashless on-board creates the potential for increasing barriers for communities who are already un(der)served. Even with many precautionary steps, the most vulnerable populations could still fall through the cracks and still face barriers to using contactless fares.

Suggestions and Considerations

- Transition into cashless onboard would need to occur slowly and with a lot of in-person community engagement.
- Add additional staff on board buses who can accept cash and sell ORCA cards.
- Develop an "I owe you" ticket program for Metro.
- Continue the Human Service Ticket program.
- Some stakeholders identified a desire to utilize ORCA cards as part of the Human Service Ticket program. Riders who received ORCA through this program would avoid paying the initial ORCA card fee.
- The Human Service ticket is still vital for their clients and an accessible way to manage distribution, though paying with the ticket make riders that use them stand out and they feel like they are stigmatized because they are treated differently when using them.

ORCA Distribution

- Additional ORCA vending in places where un(der)served populations may visit frequently such as culture-specific grocers, convenience stores, and at community-based organizations that include but are not limited to libraries, shelters, and day treatment centers.
- Identify and train community liaisons to help riders make the switch to ORCA at the local stores where they shop.

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- Continue to host neighborhood pop-ups where people can purchase ORCA cards, load their cards and be walked through the process of getting a card in client-centered locations like food banks or subsidized housing.
- Increase the number of vending machines.
- Include community-based organizations in the distribution of ORCA cards.
- Visit encampments where unhoused people live and hand out ORCA cards and bus tickets.
- Give organizations a stock of free ORCA cards to reissue to clients if they lose them.

ORCA Card

- Improve online ORCA card management for individuals, including the management of lost or stolen cards and transferring of funds.
- Eliminate ORCA card fee.
- Allow for the ability to have negative balance on an ORCA card.
- Make it easier for people to replace lost cards.
- Create the ability to access funds in a lost card at a vending machine and get a bus ticket or have a new card reissued immediately. Include an easy way to block and transfer balances from stolen/lost cards online and over the phone.
- Follow models used by banking institutions that allow for the payment of a lost card to take place gradually and over time.
- Increase the ORCA transfer window from two hours to 24 hours.

ORCA LIFT

- Simplify the process of enrolling for ORCA LIFT.
- Enable service providers to distribute ORCA LIFT cards.

Fares

- Fares should be free once a certain percentage of the revenue goal is met for Metro.
- Reinstate the ride free zone.

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Phase 1 – Needs Assessment

(August-September 2021)

Purpose: During this phase of engagement, staff identified potential Stakeholder Advisory Committee members and gathered information about previous input and feedback regarding fares, fare collections, fare enforcement, and fare structure. Staff also reviewed existing survey results about cash fare payment. This information helped inform the second phase of engagement.

Strategies, Tactics, and Activities

- Identify community stakeholders with a focus on those representing cash paying priority populations, including people of color, people with low or no incomes, immigrants and refugees, people with limited English proficiency, people with disabilities, and those who are at or below 200% of the federal poverty level, underbanked or unbanked, and/or have little to no access to financial institutions, unhoused/homeless, and infrequent riders, who would be most likely to experience adverse impacts from a transition to a cashless on-board fare payment system.
- Reach out to community-based organizations to gauge their interest and capacity to contract with Metro and participate in the Stakeholder Advisory Group.
- Review and summarize reports from recent engagement on fares and fare enforcement.
- Review comments received and tracked by Metro’s Customer Service Center to learn about customer areas of concern around fare payment and fare enforcement.
- Review past editions of Metro’s Rider/Non-Rider survey for information about fare payment preferences, behavior, and trends.

Stakeholder Advisory Group

The advisory group was made up of diverse representatives of community-based organizations that provide direct services, with a particular focus on those that are led by and for BIPOC, immigrants and refugees, linguistically diverse people, people with low and/or no incomes, and/or people with disabilities. Community-based organizations are often trusted advocates for priority populations, particularly those who serve and represent priority population residents and riders for whom it is most accessible to pay their fare in cash, including people of color, low-income people, immigrants and refugees, people with limited English proficiency, people with disabilities, and those who are at or below 200% of the federal poverty level (FPL), underbanked or unbanked, and/or have little to no access to financial intuitions, unhoused/homeless, and infrequent riders, who would be most likely to experience adverse impacts from a transition to cashless on-board fare payment.

Role of the Stakeholder Advisory Group

- Identify and analyze alternatives to current fare collection methods, including potential positive and negative equity impacts.
- Recommend suggestions on fare collection alternatives for the proviso report being sent to the King County Council.
- Co-create future engagement strategies that Metro can use to engage the public during the next phase of outreach to better understand the needs of cash riders.
- Use a “no wrong door” philosophy to engagement so that all staff act as a liaison for questions or feedback about any aspect of mobility or Metro’s services such that even if they are not directly related to this project, they will be welcomed and addressed.

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Stakeholder Advisory Group Members

Community Health

- Asian Counseling and Referral Service
- Sea Mar Community Health Centers
- Washington State Department of Social and Health Services

Cultural

- Eritrean Association in Greater Seattle

Domestic Violence

- API Chaya

HIV+ Direct Services

- Lifelong
- POCAAN

LGBTQ+

- Entre Hermanos

Refugee & Immigrant Services

- International Rescue Committee
- Refugee Women's Alliance

Behavioral Health/Treatment

- Evergreen Services' REACH Program
- Recovery Café
- Weld Seattle

Low- and no-income Housing & Direct Services

- Byrd Barr Place
- Catholic Community Services
- Chief Seattle Club
- Elizabeth Gregory Home
- Issaquah Food & Clothing Bank
- Low Income Housing Institute
- Millionaire Club /Uplift Northwest
- Real Change
- Teen Feed Service Links for Youth
- University District Food Bank

Activities

Stakeholder Advisory Group members were identified and recruited from the following organizations, using the accompanying strategies.

- Community-based organizations and participants in the 2017 [Income Based Fares advisory group](#).
- Twelve organizations participating as [ORCA LIFT partners](#) through Public Health – Seattle & King County. Recruitment actions included:
 - Providing a presentation during the August 31, 2021 ORCA LIFT Partners Quarterly Meeting and followed up with an invitation email.
 - Identifying three Stakeholder Advisory Group member organizations with representatives from Catholic Community Services, the International Rescue Committee, and the Refugee Women's Alliance.
- Organizations participating in the [2021 King County Human Services Bus Ticket Program](#). Recruitment actions included:
 - Reviewing 164 organizational participants for potential engagement and invitation to participate in the Stakeholder Advisory Group.
 - Inviting 31 organizations through email and made follow-up phone calls based on the type of organization, the diversity of populations served and locations in the county. Of the 31 that were invited, 22 accepted.

The final Stakeholder Advisory Group was made up of 23 organizations. Additionally, six organizations indicated that they were very interested but did not have the capacity at the time to engage in this work. Stakeholder Advisory Group discussion planned to be a weekly 1 ½ hour meeting over a six-

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week period between late September 2021 and November 2021. Organizations were compensated at a rate of \$60 per hour for meeting participation and any materials reviewed outside of the meeting times.

Stakeholder Review Board

The Stakeholder Review Board included Metro’s Transit Advisory Commission, Access Paratransit Advisory Committee, and Equity Cabinet. The Stakeholder Review Board’s primary role was to review and provide comment on alternate fare options recommended by the Stakeholder Advisory Group and provide guidance on future engagement opportunities.

Role of the Stakeholder Review Board

- Review the Stakeholder Advisory Group’s recommendations for alternatives to current fare collection methods, including potential positive and negative equity impacts and provide additional feedback.
- Review and recommend future engagement strategies that Metro can use to engage the public at the next phase of this process to better understand the needs of cash riders.
- Using a “no wrong door” philosophy to engagement so that all staff act as a liaison for questions or feedback about any aspect of mobility or Metro’s services such that even if they are not directly related to this project, they will be welcomed and addressed.

Phase 2 - Stakeholder Engagement (September – December 2021)

Purpose: Engage with stakeholders to analyze and recommend fare collection system alternatives and receive direction on future stakeholder engagement.

Activities

Stakeholder Advisory Group

Metro developed and implemented a memorandum of understanding with the Stakeholder Advisory Group that called for the following actions.

- Attendance and participation in four to six meetings.
 - Designated one or two staff and/or decision makers to participate in a weekly 1.5-hour meeting over a six-week period between late September and November 2021.
 - Specific dates and times set prior to the start of the meeting series.
- Review of materials, documents, and data and provide comments as needed in between meetings.
- Advise and provide recommendations on:
 - Alternative fare collection systems.
 - Improvements to the accessibility of ORCA products and/or the affordability of fares for priority populations.
 - Future engagement and communication activities and strategies for public input.

Compensation

- Organizations were compensated at a rate of \$60 per hour for their expertise and staff time. This included virtual meetings and two, four hours of work outside of regularly scheduled meetings to review materials, documents, and data.

The Stakeholder Advisory Group was convened for 1.5 hours at each meeting and met on September 30, 2021, October 7, 2021, and October 21, 2021.

Stakeholder Advisory Group Meeting #1 (September 30, 2021)

Meeting Objectives

- Stakeholder Advisory group members understand the purpose of the advisory group and their role in shaping the results.
- Stakeholder Advisory group gain an understanding of King County Metro policies and values.
- Stakeholder Advisory group gain an understanding of fares policy, products, and cost difference between cash on-board and ORCA.

Key Themes and Needs Identified

- Difficulty navigating/understanding Metro's fare systems.
- Difficulty understanding what ORCA is, how to use it and how to reload value onto ORCA cards.
- More information about Metro's reduced fare programs including LIFT and the Subsidized Annual Pass.
 - Confusion regarding the scope of each program.
 - Difficulty of enrolling.
 - Using enrollment in state programs as eligibility requirement for the subsidized annual pass.
- Not being able to afford the fare.

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- Human Service Ticketing program agencies not being able to afford ORCA for clients, limitations of paper tickets.
- Digital literacy and language access to load ORCA is limited.
- Culturally relevant training.
- Issues with large Human Service Ticketing program agencies managing 230+ residents/clients with bus tickets.
- Reduce bureaucratic process to purchase ORCA.
- Getting ORCA cards to unhoused/undocumented individuals.
- Difficulty with navigating replacing lost ORCA cards.

Stakeholder Advisory Group Meeting #2 (October 7, 2021)

Meeting Objectives

- To review key themes developed from the previous meeting.
- To gain an understanding of what Metro knows about cash paying riders.
- To present three fare collection alternatives for initial discussion (ticket vending machines, expansion of the retail network and wearable RFID enabled fare products including stickers, rings, wristbands.)
- For Metro to continue to listen to needs, opportunities, barriers, and recommendations identified by the advisory group.

Key Themes and Needs Identified

- Wide agreement that human service ticket type program is still vital for their clients, but customers feel stigmatized using human service ticket and some get negative reactions from bus drivers.
- Having a separate thing (Human Service ticket) that looks different from other fare media is stigmatizing.
- “If we are going to sell paper tickets to everyone that’s ok but don’t like paper tickets only for low income or homeless.”
- With Human Service tickets, individuals can’t access Link or transfer to Pierce Transit or Community Transit. That is a problem for many of our clients not being able to ride the train or get into neighboring counties where their families, jobs, or doctors are located.

Positive Features of the Alternatives Presented

- Like the ability to purchase at a retail location.
- Like where people can access services in a variety of places (ideal, gives people the most options).
- Like ability to purchase paper tickets or cards at retail locations.

Ideas to Improve Alternatives Presented

- Include libraries in the retail network.
- Eliminating card fee would make it easier for homeless populations to use ORCA.
- If card is lost, being able to still access those funds at a vending machine and get a bus ticket or have a new card reissued so you can ride immediately.
- Give organizations a stock of free cards to reissue to clients if they lose one.
- Liked ORCA card expansion of retail network, though needs more expansion to include small and local community stores where the people that have the most barriers shop. Clerks at those stores could help give in-language support on how to use ORCA and how to reload.

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- Want online account management that could help address language barriers because relatives could reload more easily.
- Want more neighborhood pop-ups at food banks, subsidized housing, or other social service provider locations.
- Extend transfer window from two hours to 24 hours.
- Develop an ORCA gift card.
- The possibility of free fare within downtown Seattle.
- Providing free fares for riders at or below 100% of the federal poverty level.

Barriers not Addressed by the Fare Collection Alternatives Presented

- None of the alternative's address forgetting your card or ticket, paying with cash is more accessible for some and doing so on the coach reduces fear of humiliation for not having ORCA or ticket.
- Need to make it easier for people to replace lost cards.
- \$5 ORCA card fee is a major barrier
- For those who don't ride enough, ORCA wouldn't resolve, but emphasizes importance of single use-media and paper passes. Would want multi-day pass.
- Want easy way to block and transfer balances from stolen/lost cards online and over the phone.
- Lower the minimum amount to load on an ORCA card, maybe a single trip balance or ability to save up on card, at \$.50 or \$1 at a time.
- Losing card is a significant barrier, especially for homeless people.
- Even with no card fee, clients don't have the means to load and keep a card.
- Low-income riders could potentially purchase a bus ticket but can't afford to load an ORCA card or purchase a pass.
- People in a high level of crisis (e.g., fleeing domestic violence) don't have the luxury of planning ahead to purchase an ORCA card.

Stakeholder Advisory Group Meeting #3 (October 21, 2021)

Meeting Objectives

- Discuss alternatives to paper tickets and transfers.
- Understanding of the next steps of this outreach.
- For Metro to continue to listen to needs, opportunities, barriers, and recommendations identified by the advisory group.

Key Themes and Needs Identified

- Mobile based applications are hard for communities as they lose phones or are stolen, many do not have a data plan.
 - Homeless clients often lose their phones or have them stolen.
 - Many have "lifeline" phones with limited data and monthly minutes.
 - Phones are of poor quality, often break, and are difficult to replace.
- "I want to see eligibility for the subsidized annual pass expanded to include clients who are under the 80% federal poverty level based on Employment Security Proof or Proof of Homelessness."
- Some refugees and immigrant, elders, and others may not have the tech literacy required to download or work on an online application.
 - Lack of or limited English fluency exacerbates this issue.

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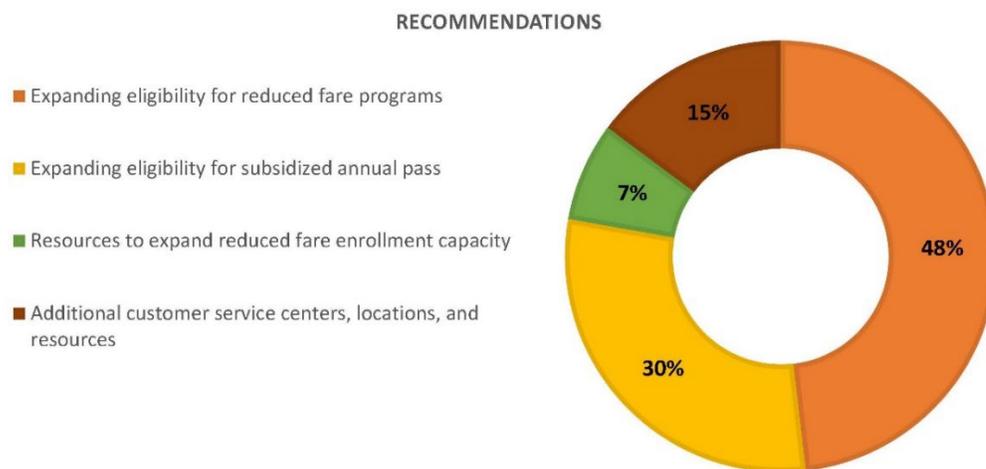
- In some cases, there is only one smart phone available per family, limiting the capacity to rely on a phone as a form of fare payment.

Suggestions for Replacement of Human Service Paper Tickets and Paper Transfers That Would Better Meet Client Needs

- A wearable that can be scanned to pay the fare such as a wristband, keychain, or lanyard would work best for the un-housed population.
- Add a sticker on ID cards.
 - Our populations do have Electronic Benefit Transfer cards but will lose ORCA cards. Not sure what replacement process is. Electronic Benefit Transfer cards are super easy to replace.
 - Don't think it matters what kind of ID card - if they lose one, they lose all. Don't think specific card matters, what matters is how easily replaceable it is.

When asked which of the top two investments Metro should prioritize, attendees chose the following.

Fares Stakeholder Advisory Group Recommendations



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Stakeholder Advisory Group Meeting Attendees

Name	Meeting Attendees
Alliance of People with disAbilities	Hope Sheree
API Chaya	DeAnn Alcantara-Thompson
Asian Counseling and Referral Service	Sompasong Keohavong
Byrd Barr Place	Kieryn High
Catholic Community Services	Janet Hammer
Chief Seattle Club	Shanna Howtopat
Elizabeth Gregory Home	Michele Martin
Entre Hermanos	Alejandra Grillo
Eritrean Association in Greater Seattle	Azeb Hagos
Evergreen Services - REACH Program	Dawn Sheppard
International Rescue Committee	Shannon Foss
Issaquah Food & Clothing Bank	Rebecca Rice
Lifelong	Alma Garcia-Santos
Low Income Housing Institute	Jon Grant
Millionair Club / Uplift Northwest	Max Churaisin
POCAAN	Autry Bell
Real Change	Jacob Schear
Recovery Cafe	Rachel Koller
Refugee Women's Alliance	Mahnaz Esetu
Sea Mar Community Health Centers	Jerry Garcia
Teen Feed Service Links for Youth	Phillip Peters
University District Food Bank	Joe Grubber
WA Department of Social and Health Services	Candy Banker
Weld Seattle	Jason Vickers

Stakeholder Advocacy Group

Metro convened two meetings with staff from Transportation Choices Coalition, Transit Riders Union, and the Seattle/King County Coalition on Homelessness.

Stakeholder Advocacy Group Meeting #1 (September 23, 2021)

- Metro staff provided background about the fare collection system proviso, and the Stakeholder Advocacy Group's role in the process.
- Stakeholder Advocacy Group feedback included:
 - Concerns that going cashless onboard is not equitable.
 - Cash needs to remain an option unless fare payment is encouraged but optional.

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Stakeholder Advocacy Group Meeting #2 (December 14, 2021)

Metro staff provided a review of the fare collection system proviso community engagement process, feedback collected from the Stakeholder Advisory Board, including priorities and preferred alternatives, additional information about cash paying customers, summary of equity risk tolerance analysis, and summary of interventions under consideration.

Stakeholder Advocacy Group feedback included:

- Support for the community-based organizations that formed part of the Stakeholder Advisory Group and in agreement with the concerns raised by the group.
- Remained grounded in the idea that cash needs to remain an option unless fare payment is encouraged but optional.

Discussions with Metro and King County Advisory Committees

Metro Staff presented to the Access Paratransit Advisory Committee (APAC), the Transportation Advisory Commission (TAC), and Metro Equity Cabinet regarding the Fares Collection System proviso, including background and alternatives to cash collection on-board.

Discussion questions posed at each committee meeting included:

- How could Metro make non-cash fare payment and collection options more accessible for all riders?
- Among the options Metro considered, which do you like, and which do you not like?
- What aspects of the fare system are we not considering that we should be?
- Given limited resources, where would you most like to see Metro invest?
 - Additional service?
 - Fare incentives and subsidies?
 - Customer service or outreach staff?
 - Other?

Key concerns expressed for cashless system in the APAC, TAC, and Equity Cabinet meetings included the following.

- **Disenfranchisement:** For those who will not be able to transition to a cashless on-board system, concern was raised on how they will be able to ride and what additional hurdles they will face to do so. The cost of an ORCA card can also limit access to low-income riders.
- **Lack of smartphones:** Metro riders in the community do not have access to smartphones needed for digital payment.
- **Creation of barriers to paying fare:** A transition to a system of going cashless onboard will create many barriers and much will have to be done to ensure that those who pay cash now will have the ability to continue riding.
- **Additional resources required:** In order to provide education and on-call, in-language support for a tech-based form of payment.
- **Occasional riders:** This population may likely not find benefit in having ORCA.
- **Being denied a ride:** More clarity was needed regarding policy for the denial of a ride due to lack of payment.

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- **Conflict faced by bus operators:** Currently, they face conflict already. This may increase the potential of conflict for them.
- **Availability of ORCA vending machines:** More clarity was needed as to whether vending machines would be available at every stop and, if so, what the cost of this would be.
- **Lack of fare subsidies for people with disabilities:** For those who are disabled but ride Metro and not Access, there isn't additional financial support when needed.
- **Tourists and visitors:** Visitors may not be aware of the removal of the option to pay cash on board busses and may not have access to public, affordable transportation because of it.
- **Families traveling together:** Adults traveling with children will need the ability to pay for their fare and it will need to be a simple and accessible system.
- **Ability to pay for others:** Without the capacity to pay cash, how would someone pay for the fare of another?
- **Adults traveling with children:** They will need the ability to pay for their fare and it will need to be a simple and accessible system.
- **Occasional riders:** They may not find benefit in having ORCA.

Alternatives and Considerations

- Continue conversation with these three groups in the Fares engagement process.
- Increase the number and types of businesses that offer ORCA as a benefit to employees.
- Add ORCA vending machines in the airport or include the purchase of bus fare as part of the airfare booking process.
- Consider community concerns as serious issues in need of thoughtful solution as opposed to a quick, surface-level resolution.
- Focus on fare subsidies for riders with disabilities, particularly those on Supplemental Security Income.
- Work with caregivers who often manage transit cards for disabled clients.
- Provide the same ORCA features for all riders, disabled and not, in order to have an equitable system.

Questions Raised

- How would the loss of a cash on-board option affect riders who only use the bus every so often, or tourists?
- Will removing the cash on-board option push people who are not current transit users further away?
- How will rider-operator conflict be eliminated without a cash on-board option?
- Can ORCA be connected with Electronic Benefit Transfer cards?
- How can we ensure that the benefits of a future fare system do not accrue only to those who already have more resources and advantages?
- More clarity was needed regarding policy for the denial of a ride due to lack of payment.
- Without the capacity to pay cash, how would someone pay for the fare of another rider?

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Engagement Performance Metrics

The following measures have been identified by Metro’s Community Engagement staff group to regularly track and report on progress across all of Metro’s engagements. These measures help identify areas for improvement and growth and were tracked throughout the project.

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Measure #1: Use Metro’s Engagement Spectrum to engage community participants

Spectrum of Public/Community Participation

	Inform	Consult	Involve	Collaborate	Community Directs
Participation Goal	<ul style="list-style-type: none"> • Provide community balanced, factual and culturally-appropriate information of problem and solution/decision 	<ul style="list-style-type: none"> • Obtain community feedback on analysis, alternatives and/or decision 	<ul style="list-style-type: none"> • Work directly with communities throughout the process to ensure that concerns and priorities are consistently understood and considered. 	<ul style="list-style-type: none"> • Partner with communities in each aspect of the decision, including the initial development of alternatives and the preferred solution 	<ul style="list-style-type: none"> • To place final decision-making in the hands of the public or community
Message	<ul style="list-style-type: none"> • We will keep you informed 	<ul style="list-style-type: none"> • Will keep you informed, listen to and acknowledge concerns and provide how community input influenced the decision 	<ul style="list-style-type: none"> • We will work with you to ensure that your concerns and issues are directly reflected in the alternatives developed and provide feedback on how community input influenced the decision 	<ul style="list-style-type: none"> • We will look to you for direct advice and innovation in formulating solutions. We will incorporate your advice and recommendations into the decisions to the maximum extent possible. 	<ul style="list-style-type: none"> • We will implement what you decide
Method	<ul style="list-style-type: none"> • Press releases, fact sheets, websites, open houses 	<ul style="list-style-type: none"> • Public comment, focus groups, surveys, public meetings 	<ul style="list-style-type: none"> • Partner Review Boards, Workshops, Forums, Coalitions 	<ul style="list-style-type: none"> • Mobility Boards, Community Advisory committees, Consensus building, participatory decision making 	<ul style="list-style-type: none"> • Juries, ballots, delegated decisions, participatory budgeting
Who	<ul style="list-style-type: none"> • General public or community 	<ul style="list-style-type: none"> • Sample of community members who respond or participate 	<ul style="list-style-type: none"> • Invited representatives of communities 	<ul style="list-style-type: none"> • Volunteer and invited representatives of communities, Mobility Boards 	<ul style="list-style-type: none"> • Members of the public or communities acting within a formal structure

Measure #2: Customer satisfaction with engagement

A meeting survey was sent to participants of Stakeholder Advisory Group following the first meeting in which a majority understood their role and all respondents felt their contributions were listened to and valued by Metro staff. Guided by their feedback, we continued our small group breakout discussions as those were seen as useful and increased the amount of time spent in those space to ensure all participants had the time to speak. (All of the questions and answers from the survey are included in the Appendix to this report.)

Measure #3: Dollars spent on contracts with community-based organizations or direct engagement with priority populations

Metro spent approximately \$11,000 on 24 contracts with community-based organizations with the goal of growing in the areas of equitable engagement, and long-term investment and relationship building in communities. Stakeholder Advisory Group member organizations were compensated at a rate of \$60 per hour for the organization's expertise and staff time. The Stakeholder Advisory Group was convened for three meetings with two hours of work outside of regularly scheduled meeting times in order to review materials, documents, and data. For organizations that attend all three meetings they were compensated \$480 (three meetings plus two hours of prep work) each.

Appendix A – Fare Collection Systems Proviso Engagement Summary

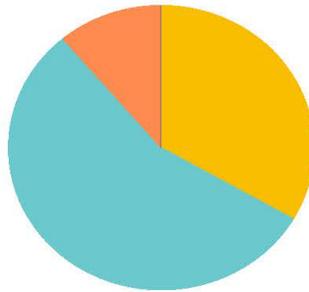
Appendix

Fares Stakeholder Advisory Group - Meeting #1 Survey Results

Fares Stakeholder Advisory Group - Meeting #1 Survey

Q1 How much, if at all, has COVID 19 impacted your organization's capacity to participate in collaborations with other projects, organizations, coalitions, and/or with government entities?

Answered: 9 Skipped: 1



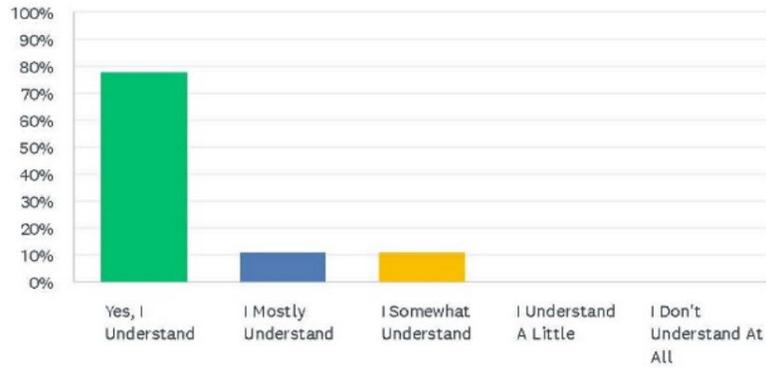
	NOT AT ALL 0	1	2	3	4	EXTREMELY SO5	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	0.00% 0	33.33% 3	55.56% 5	11.11% 1	0.00% 0	9	2.78

Appendix A – Fare Collection Systems Proviso Engagement Summary

Fares Stakeholder Advisory Group - Meeting #1 Survey

Q2 Do you understand the purpose of the Fares Stakeholder Advisory Group and your role in shaping the results?

Answered: 9 Skipped: 1



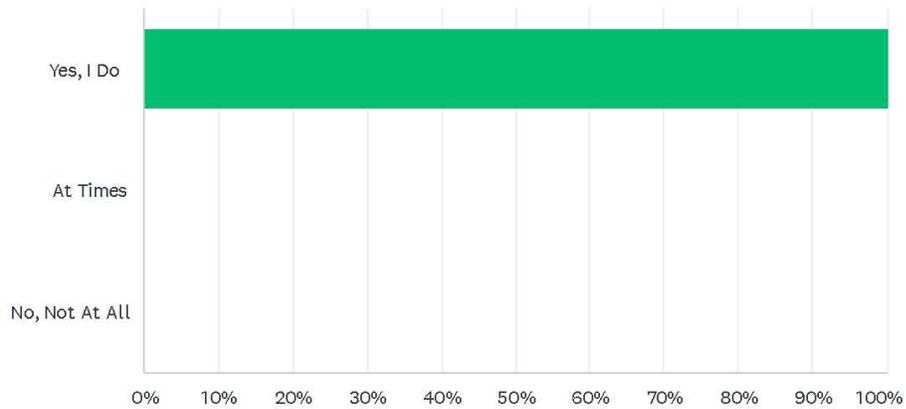
ANSWER CHOICES	RESPONSES	
Yes, I Understand	77.78%	7
I Mostly Understand	11.11%	1
I Somewhat Understand	11.11%	1
I Understand A Little	0.00%	0
I Don't Understand At All	0.00%	0
TOTAL		9

Appendix A – Fare Collection Systems Proviso Engagement Summary

Fares Stakeholder Advisory Group - Meeting #1 Survey

Q3 Did you feel like your contributions were listened to and valued by the staff?

Answered: 10 Skipped: 0



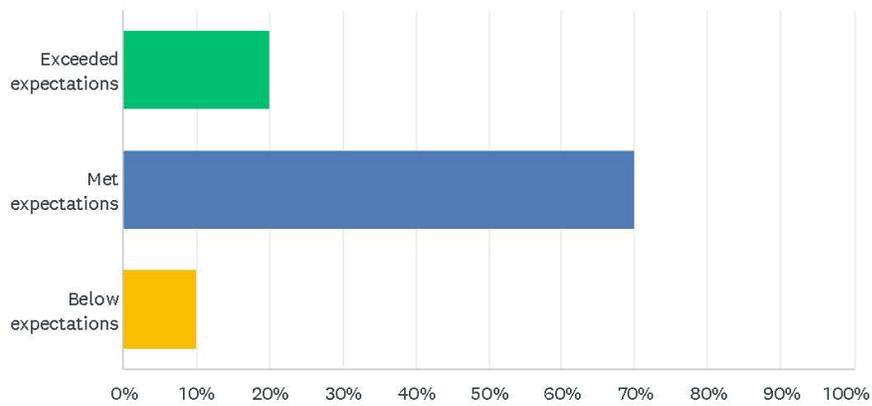
ANSWER CHOICES	RESPONSES	
Yes, I Do	100.00%	10
At Times	0.00%	0
No, Not At All	0.00%	0
TOTAL		10

Appendix A – Fare Collection Systems Proviso Engagement Summary

Fares Stakeholder Advisory Group - Meeting #1 Survey

Q4 Overall, how would you rate the first Stakeholder Advisory Group Meeting?

Answered: 10 Skipped: 0



ANSWER CHOICES	RESPONSES	
Exceeded expectations	20.00%	2
Met expectations	70.00%	7
Below expectations	10.00%	1
TOTAL		10

Appendix A – Fare Collection Systems Proviso Engagement Summary

Fares Stakeholder Advisory Group - Meeting #1 Survey

Q5 Do you have any feedback on the structure and/or meeting format, such as what worked and what could use improvement?

Answered: 6 Skipped: 4

#	RESPONSES	DATE
1	probably will work that we have some small discussion groups since we are a large group	10/6/2021 1:42 PM
2	Breakout rooms were helpful given the size of the group, hopefully we will have more of that. Thank you!	10/5/2021 3:27 PM
3	No. Well done.	10/1/2021 4:14 PM
4	More time in breakout sessions	10/1/2021 8:22 AM
5	Time didn't seem to be used most efficiently. It felt like it took a while to start having productive conversations.	10/1/2021 7:51 AM
6	I hope that there is enough time in these next couple weeks so that everyone's voices can be heard.	9/30/2021 5:06 PM

Appendix A – Fare Collection Systems Proviso Engagement Summary

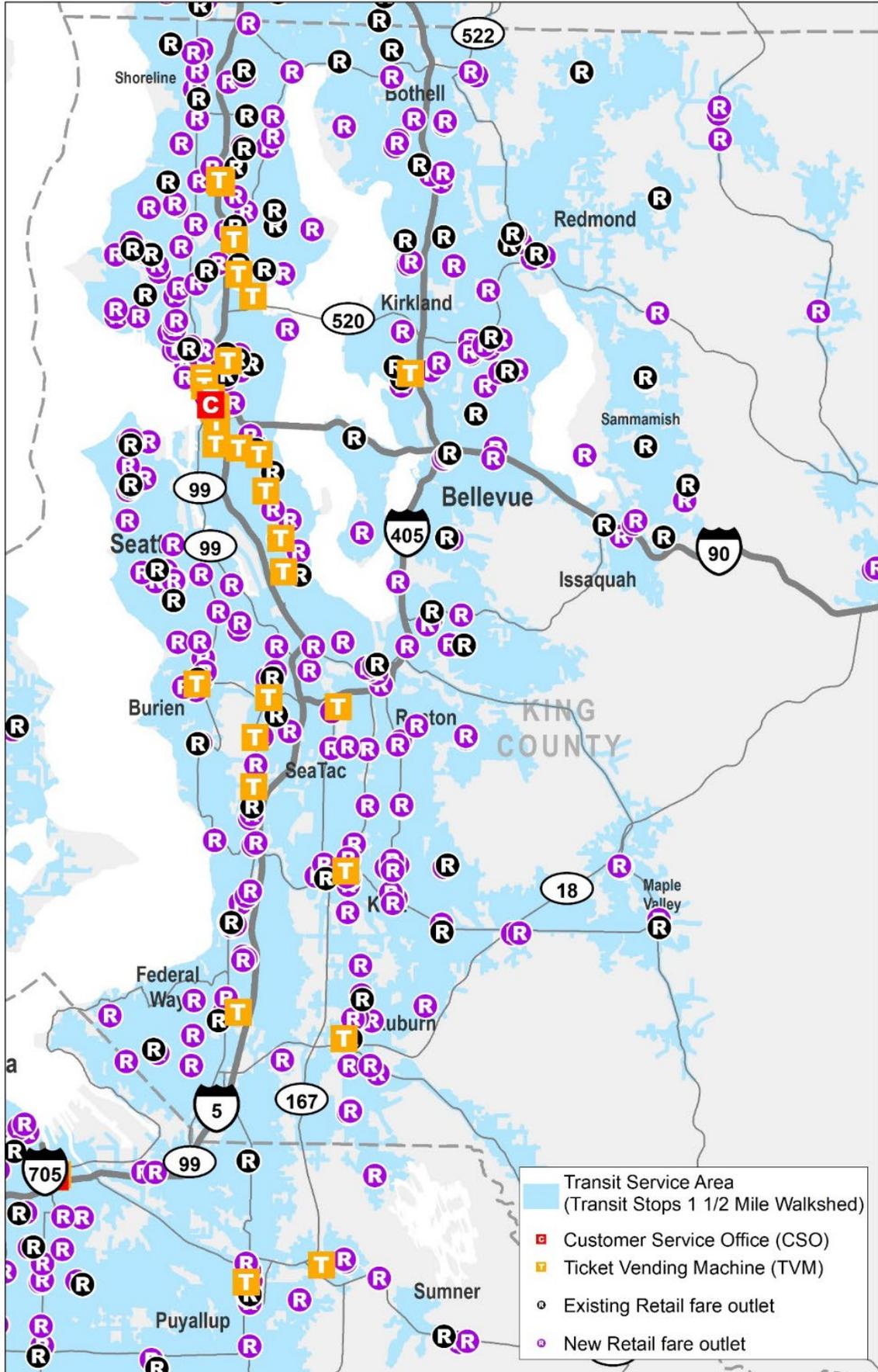
Fares Stakeholder Advisory Group - Meeting #1 Survey

Q6 Any additional comments?

Answered: 3 Skipped: 7

#	RESPONSES	DATE
1	eager to contribute we are already going to discuss with our teams to provide more input as a whole agency department	10/6/2021 1:42 PM
2	Thank you for including us in the meeting.	10/1/2021 4:14 PM
3	n/a	9/30/2021 5:06 PM

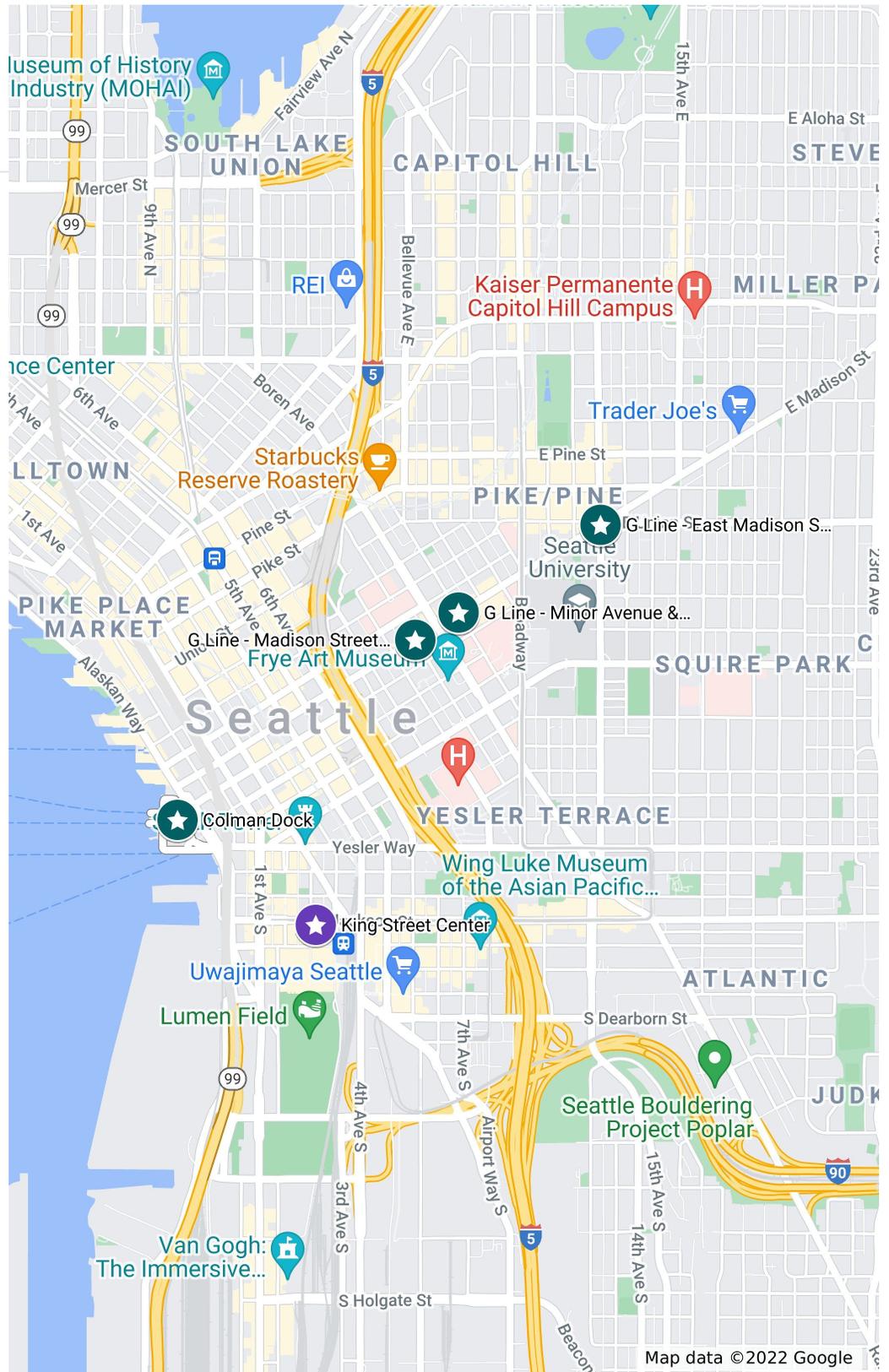
Appendix B – Existing and Planned ORCA Retail Network Locations in King County



KCM Vending Machine Locations

KCM Vending Machine Locations

- ★ Non-Metro Property
- ★ Metro Property



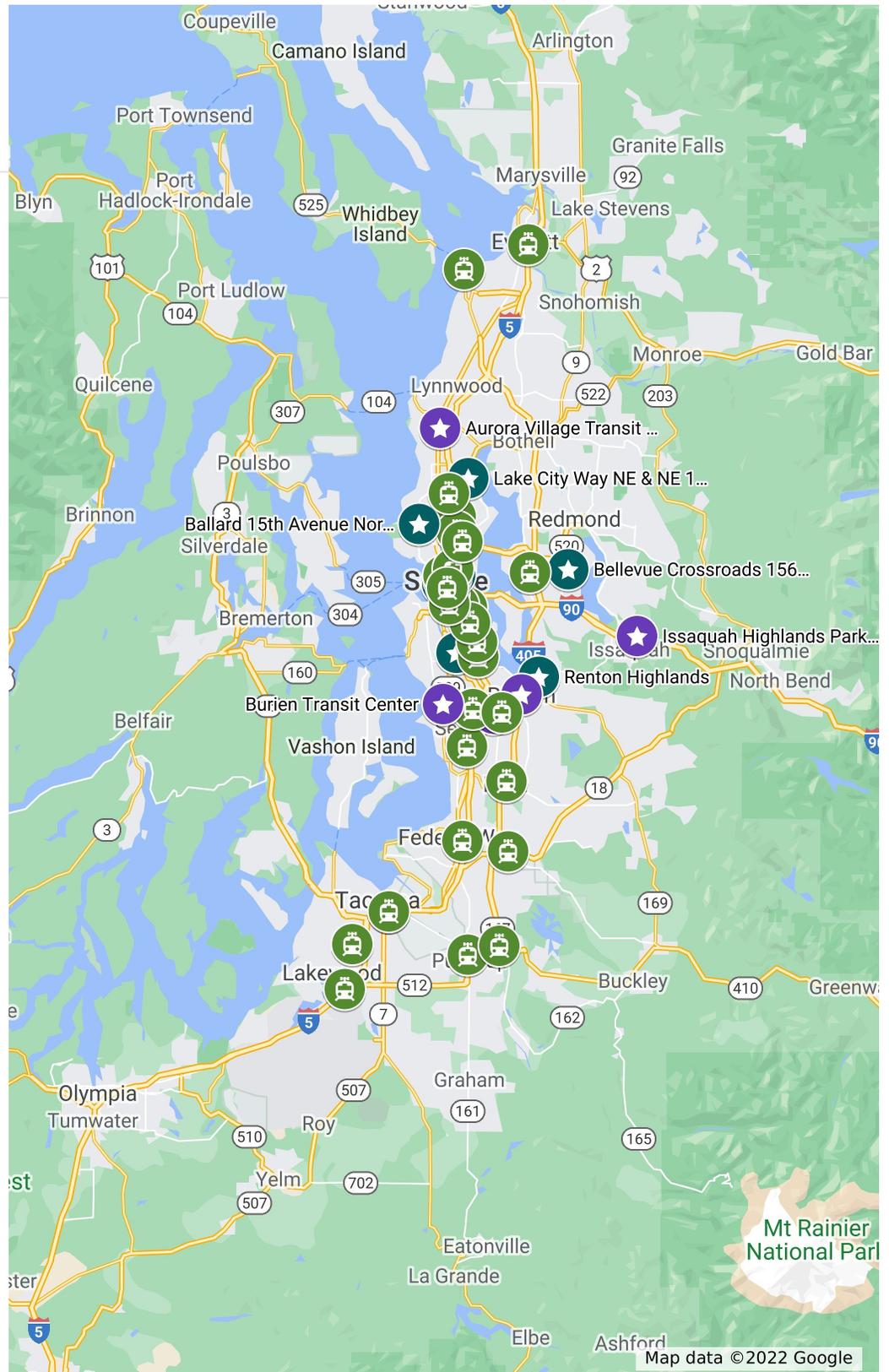
KCM Vending Machine Locations

KCM Vending Machine Locations

- ★ Non-Metro Property
- ★ Metro Property

Sound Transit VM Locations

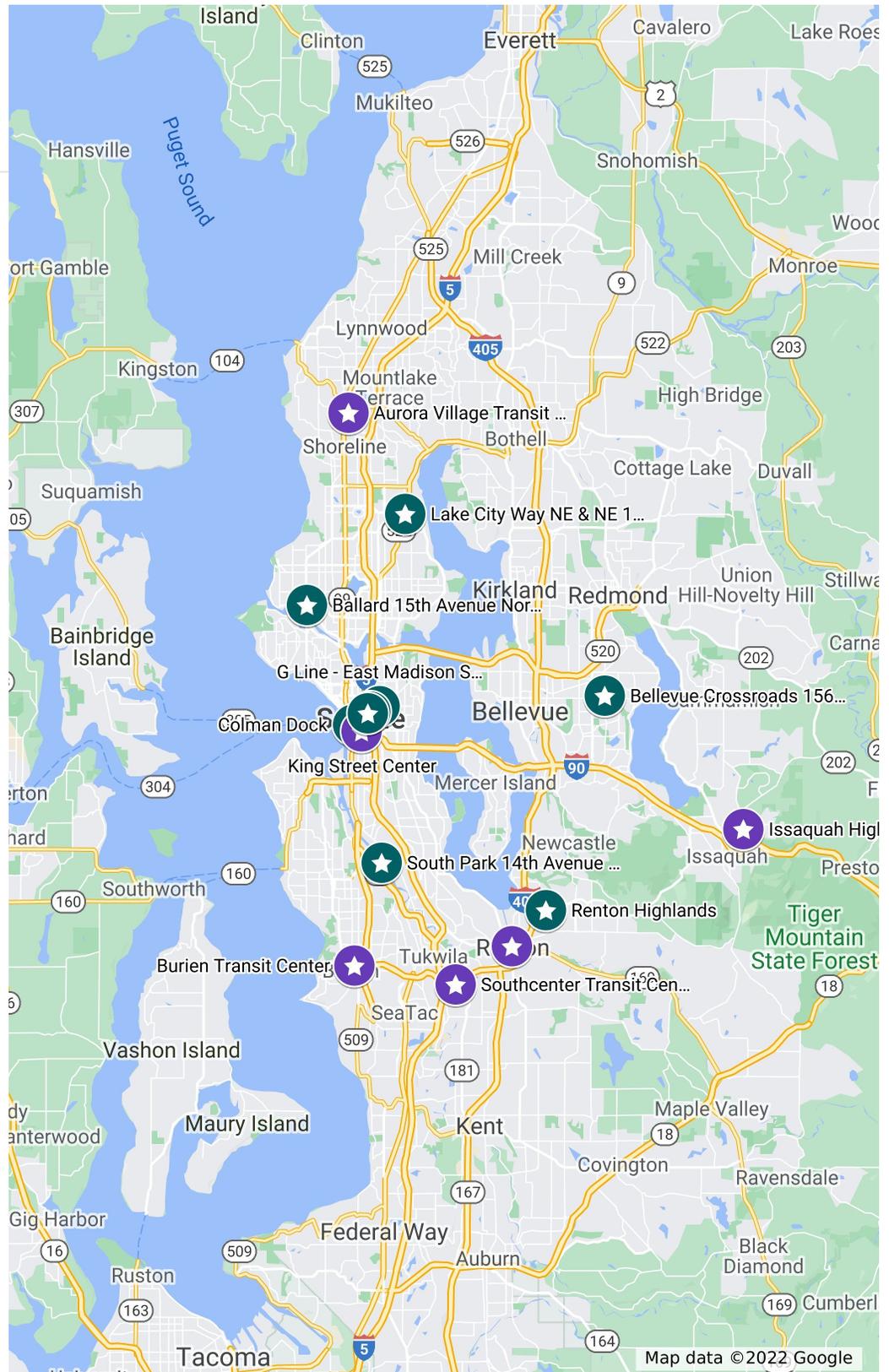
- 🚗 All items



KCM Vending Machine Locations

KCM Vending Machine Locations

- ★ Non-Metro Property
- ★ Metro Property



Appendix D – Summary of Recent Metro Reports, Recommendations, and Subsequent Actions

Very-Low-Income Transit Fare Options Report¹ (2017)

- Raise the annual Human Services Ticket Program subsidy authorization from \$3.6 to \$4 million.
 - *Action:* The King County Council increased the Human Services Ticket Program subsidy authorization to \$4 million in 2017.²
- Launch a pilot program to test the use of ORCA fare media to improve the Human Services Ticket Program.
 - *Action:* Completed initial demonstration project in 2021 to test the feasibility of expanding the Human Service Ticket Program to include ORCA-based products. The demonstration was funded by Sound Transit’s transit coordination grant from the Washington State Department of Transportation and intended to test initial feasibility that would inform a full pilot in the New ORCA system. As described in the Opportunities for Investment in Improving the Accessibility or Affordability of Fares for Priority Populations section, Metro could continue to coordinate with Sound Transit to expand and launch the next phase of the pilot and if successful, further expand the option of ORCA-based transit subsidies for human service agencies.

¹ Response to [Ordinance 18409](#), Section 115, Proviso PI

² [Ordinance 18609](#)

Making Metro More Affordable and Accessible Proviso Report³ (2018)

- Develop a subsidized income-based ORCA pilot program serving low-income people who cannot afford the ORCA LIFT fare in and across specific markets.
 - *Action:* Completed a pilot in 2020 in partnership with DSHS and researchers from the Lab for Economic Opportunities at the University of Notre Dame and the University of California, Irvine. Findings informed the development of the subsidized annual pass program, as described in the 2019 Income-Based Fare Program Implementation Plan.
- Conduct marketing and outreach to increase ORCA LIFT enrollment for youth, students, trainees, subsidized housing residents, low income, communities of color, limited English speaking, immigrants & refugees.
 - *Action:* Relaunched ORCA To-Go as Neighborhood Pop-Up and expanded the service to include regularly scheduled events in over twenty locations throughout King County. This service provides an opportunity for customers to get information about mobility options, enroll in reduced fare programs, and add value to ORCA cards in convenient locations in their communities on a regular schedule. The program completed 494 onsite events in 2019, which was a 49% increase over the previous year. Over 70% of ORCA cards issued were to Senior, Youth or Disability riders, and the program was awarded the Women in Transportation Innovative Transportation Solution Award in 2019.
 - *Action:* Through a contract with Public Health – Seattle & King County, conducted ORCA LIFT enrollment events, recruited and trained new ORCA LIFT enrollment partners, and provided ongoing support for the ORCA LIFT enrollment network to train new staff, ensure compliance, and inform them about new resources for customers.
- Research and understand barriers to using transit for reduced fare and priority populations.
 - *Action:* Engaged with stakeholders and customers and conducted research to inform recommendations provided in the 2019 Income-Based Fare Program Implementation Plan, 2020 Reduced Fare ORCA Card Procurement Location Implementation Plan, and this report.
 - *Action:* Partnered with Hopelink, the Lab for Economic Opportunities at the University of Notre Dame, and DSHS to develop a transportation navigators project that seeks to identify and address non-cost barriers to transit ridership among priority populations.
 - *Action:* Engaged with community-based organizations as a part of the 2021 Ridership Recovery effort to better understand the barriers to transit that priority populations face, what targeted outreach best reaches them, and what level of value ORCA cards changes customer behavior in the long-term. In 2022, Metro plans to expand this effort and encourage the community-based organization to join the ORCA LIFT enrollment network.
 - *Action:* Partnered with CBOs and behavioral science specialists at MDRC to interview cash-paying riders and gain a better understanding of fare payment preferences and barriers.

Appendix D – Summary of Recent Metro Reports, Recommendations, and Subsequent Actions

Income-Based Fare Program Implementation Plan⁴ (2019)

- Launch a new program that builds on the successful ORCA LIFT program by providing fully subsidized transit passes for income-eligible people.
 - *Action:* Negotiated with Sound Transit to join the program to ensure regional access, amended King County Code 4A.700.490, and launched the new program in October 2020.⁵
 - *Action:* Developed outreach and promotional materials for eligible customers and agencies who serve them to encourage enrollment.

Reduced Fare ORCA Card Procurement Location Implementation Plan⁶ (2020)

- Improve customer communications about these fare products, how to apply for them, and how to use them.
 - *Action:* Launched a new online tool (called the Reduced Fare Portal) as an online option for customers to apply for ORCA LIFT, RRF and ORCA Youth cards.
 - *Action:* Made accessibility improvements to Metro’s reduced fare websites based on feedback from partners.
 - *Action:* Developed and launched online screening tool to help customers identify which fare they qualify for and how to apply.
 - *Action:* Developed and distributed a new brochure about the various ORCA reduced fares; utilized the brochure to promote the Reduced Fare Portal and online screening tool.
 - *Action:* Launched the Discover Reduced Fares campaign to inform customers about reduced fare options through marketing and outreach through community-based organizations.
 - *Action:* Provided trainings for Sound Transit Fare Ambassadors about reduced fares, enrollment options, and new tools.
 - *Action:* Promoted ORCA reduced fare options to customers affected by service changes to increase ORCA utilization.
 - *Action:* Initiated regular mailings to ORCA LIFT customers whose cards are expiring to encourage renewal.

³ [2018-RPT0132](#)

⁴ [Motion 15600](#)

⁵ [Ordinance 2020-0023](#)

⁶ [Motion 15681](#)

Reduced Fare ORCA Card Procurement Location Implementation Plan (2020) Continued

- Expand Metro’s Neighborhood Pop-Up Program to offer additional mobile outreach and distribution.
 - *Action:* Launched a virtual version of Neighborhood Pop-Up to continue providing support to customers during COVID-19 pandemic and help customers utilize the new Reduced Fare Portal. Ongoing expansions are described in the Opportunities for Investment in Improving the Accessibility or Affordability of Fares for Priority Populations section of this report.
- Create a network of agencies to verify RRF and Youth card eligibility.
 - No action to date – this potential investment is described in the Opportunities for Investment in Improving the Accessibility or Affordability of Fares for Priority Populations section of this report.
- Expand school partnerships including distribution of youth ORCA cards and educating students on how to access and use public transportation
 - *Action:* Piloted the Summer Youth Pass Program, providing subsidized 3-month ORCA Passes to high school students who are eligible for free and reduced-price lunch in the Federal Way, Highline, Kent, Lake Washington, Tukwila, and Renton School Districts, which included approximately 1,800 students. This effort utilized the Reduced Fare Online Portal.
 - *Action:* Through a partnership with Renton School District, launched a Skyway/Renton Youth Pass pilot project providing subsidized Youth ORCA passes to approximately 1,800 students in three schools in the Skyway area. The effort also provides free access to the Skyway and Renton Highlands Via to Transit service, in addition to public transit.
 - *Action:* Launched a grant-funded initiative that will develop and deliver a transit education curriculum in K-12 classrooms in King County. The project will work with youth, school district staff, and community-based organizations to design modules around sustainability, safety, and public transit basics.
 - Ongoing expansions are described in the Opportunities for Investment in Improving the Accessibility or Affordability of Fares for Priority Populations section of this report.

Transit Payment Decisions in King County, WA and the Role of Cash Behavioral Barriers and Payment Behavior Insights from Cash Rider Interviews & Solutions to Motivate Payment Behavior Change

January 2022

Introduction

In this memo, the MDRC team presents preliminary analysis of interviews with 24 King County bus riders who pay with cash some or all of the time. The first part of this memo is organized by four “personas,” which reflect four mindsets and categories of barriers to using non-cash payment methods that riders may face. The persona categories were developed based on an information scan in which we reviewed nearly 100 King County Metro data sources, including reports, summaries of survey results, administrative data, interviews with Metro staff, presentations and papers from other researchers, and more. The information scan allowed us to identify several major types of rider considerations or barriers (early drafts of our personas), which we used to tailor our questions during interviews. Using interview insights, we further developed these personas to systematically organize our rider-level data about behaviors, attitudes, concerns, and biases into examples of typical riders. This approach both protects the information of interview participants and provides an overview of the shared characteristics of riders using cash, derived from real rider experiences. Personas do not necessarily capture every experience of every rider, but they provide a strategic anchoring point on which to base solutions that better target the barriers riders face.

Below we include a summary of the personas, how their insights and experiences connect to the **attached behavioral map**, examples of different ways riders experience the barriers when they may exhibit each persona, rider quotations, key insights, and potential misconceptions.

The personas are:

- Price Barriers
- Cash is Convenient
- Lack of Trust
- Unaware of Non-cash Options or Process

Following the discussion of each individual persona, we include an analysis of some of the ways the different personas overlap and intersect. Then, we include a summary of how the riders we interviewed may behave if the option to pay with cash onboard Metro buses was unavailable. Finally, we list potential solutions that may address the barriers cash-paying riders have with using non-cash payment options and offer suggestions for how to prioritize which solutions to implement.

The attached behavioral map (Appendix B) shows the payment barriers that riders face as they navigate the process of riding transit using an ORCA/RRFP card; a second half of the map then shows barriers related to reloading and renewing a card. The barriers in the behavioral map were identified during interviews with riders, and each barrier is categorized into one of the four persona categories. The map provides one example or quote for each step in the process. Finally, it includes examples of solutions that Metro could implement to address the

barriers. The potential solutions are categorized into the persona categories and are also divided into solutions that would take a lower effort for Metro to implement and those that would take higher effort.¹

Characteristics of Interviewees

All riders interviewed use the bus in King County Metro and are age 18 or older. Eligibility criteria for interviews included paying with cash some or all of the time, though one rider shared that they had never paid with cash, and another had not paid in cash in many years.² The riders were identified through the sources shown in the table below.

Recruitment Sources	Number of Riders
Chinese Information and Service Center (CISC)	5
Congolese Integration Network (CIN)	4
Mt. Baker Housing Association	5
Open Doors for Multicultural Families	6
Youth identified from a previous collaboration between King County Metro and Youth for Equitable Streets	2
ORCA Recovery card users identified from a collaboration between King County Metro and Seattle Department of Transportation	2

Demographics were not collected for the interviews, but eleven interviews were conducted in English and thirteen interviews were conducted in non-English languages with an interpreter present.³ Additional self-disclosed information about the interviewees is included in Appendix A.⁴ Based on what the riders shared during the interviews, the research team organized them into three categories of ORCA/RRFP use, as shown in the table below.

ORCA/RRFP Use of Interviewees	Number of Riders
Have not tried reloadable card (cash, human services bus tickets, and flash pass only) ⁵	5
Tried reloadable card and later limited or discontinued use	10
Successfully adopted reloadable card ⁶	9

Routes Used by Interviewees

Interviewees disclosed using 54 different bus routes.⁷ Of these, the vast majority were mentioned by only one person. Ten routes were used by more than one rider. The three most common routes among interviewees include: 7 (6 riders), A (5 riders), and 60 (4 riders). Additionally, the 36 and the 106 were used by 3 riders, and the

¹A more thorough exploration of the definition of “effort” is included in the Solution Prioritization section on pages 25-26.

²Relevant insights from these interviews are still included in this memo.

³Additionally, one interview with an English-speaking rider was conducted with speech relay. Non-English languages of riders included Cantonese, French, Khmer, Lingala, Mandarin, Somali, Swahili, Tigrinya, and Vietnamese.

⁴This information includes riders’ technology use, technology access, sources of information about transit, self-disclosed demographics, use of light rail, and non-cash payment types used.

⁵In some cases, it was not clear to the research team whether someone who described using their card as a flash pass had a card that could be reloaded. The team counted riders with a Senior or Disabled RRFP card as not using a reloadable card if they only described paying with cash in interviews.

⁶Riders who have successfully adopted ORCA/RRFP cards may still use cash for some rides, but they prefer cards, use them regularly, and plan to continue using them.

⁷Additionally, one rider disclosed using “rapid lines” but did not specify which routes. One interviewee said one of their routes is the “red line” bus.

3, 12, 16, 101, and 107 were used by 2 riders each. There is no clear card usage pattern connected to the routes interviewees used. There are a mix of riders who have not tried a reloadable card option, who have discontinued use of a reloadable card, and who have successfully adopted a reloadable card using all three most common routes. There is a similar mix of card usage among the 7 riders who used at least one rapid transit route.

PRICE BARRIERS

- May perceive value of using cash as being greater than ORCA/RRFP card options, and perception of value of ORCA card may be related to awareness of discounted ORCA options.
- May “hack” fares by negotiating with bus driver when they have less than full fare or are over time on the transfer window.
- Likely low income.

PRICE BARRIERS in the BEHAVIORAL MAP

Riders tend to experience price barriers in the earlier steps of the process. Many price barriers are salient when riders are learning and considering ways to pay and whether they decide to get the ORCA card (**Steps C and D** on the behavioral map). One of the earliest barriers, at **Step C**, is that some riders feel uncertainty about whether ORCA offers a price advantage for their specific circumstances. If they actively explore non-cash alternatives, riders may consider whether ORCA will offer them a price benefit given how often they ride, what type of transit they use, whether they qualify for a discounted fare, and how they utilize paper transfers or “hack” fares in other ways with cash. Each factor may be weighed differently and may happen explicitly or on a more subconscious level. Some riders do not make these calculations in advance, but rather obtain ORCA and then perceive a price advantage for one option (or no price advantage). Riders sometimes perceive ORCA to be more rigid and cash to be more flexible because of negotiation with the bus operator. For example, several riders described showing paper transfers to drivers when they are a few minutes past the cutoff time to board without paying again while an ORCA card will automatically charge them. Some riders explicitly stated that this ability to negotiate was an important reason for their preference for cash. Additionally, some riders may distinguish the overall costs of riding from the perceived fair price, and even if they are paying a discounted rate may perceive it as unfairly high. These price considerations are weighed when riders decide whether to continue to use, replace, reload, or renew their ORCA card. Some reloading barriers are related to price but are more about convenience or awareness, such as the stress related to not knowing the balance remaining on the ORCA card in **Step I**.

EXAMPLE RIDER EXPERIENCES⁸

Elijah	Jack	Evelyn
<ul style="list-style-type: none"> • Elijah is a senior who uses the bus several times a week to see friends and family and run errands. He has a reloadable Senior RRFPP but prefers to use cash because he typically has to transfer buses. Even with careful planning, he is not always able to complete the journey in two hours. While bus operators will let him ride beyond the paper transfer window, he has to pay again if he uses cash. 	<ul style="list-style-type: none"> • Jack is an immigrant who does not speak or read English. He rides the bus alone or with his son, who has a disability, 3-4 times per week. Price is the most important consideration to him, and he has only ever paid with cash. He's seen people pay with cards, but wonders whether he rides enough for a card to be a good deal for him. He is not sure if a card would be affordable. 	<ul style="list-style-type: none"> • Evelyn is a senior who has an RRFPP flash pass and pays with cash. She decided to get an Adult ORCA card during a promotional period when the card was advertised as free, primarily to use it on the light rail. She prefers to pay in cash because she pays full price with ORCA and a reduced fare with cash, even when she does not have her flash pass with her.

⁸Throughout the memo, example rider experiences may represent the stories of one interviewee or a composite of multiple interviewees with similar experiences. All names are pseudonyms.

RIDER QUOTE

“[With ORCA, I have] to load a large amount of money into the card at once. Because [I have] low income, and have to put \$50 on the card [for the monthly pass], then that \$50 is held in the card and can’t be used for other things”

KEY INSIGHTS⁹	Never tried	Tried and discontinued	Tried and adopted
One rider thinks ORCA may be more expensive than cash if a person does not ride the bus and use ORCA frequently enough.	✓		
The transfer window is often longer with a paper transfer than with ORCA. Bus operators may also allow a rider to extend a transfer window with a paper transfer, providing flexibility not available with ORCA.	✓	✓	
Seniors and individuals with disabilities often pay a reduced fare price without a card or with an expired card, so they may not experience a price advantage with getting or replacing a card.	✓	✓	
Some riders pay full price for their fare even though they likely qualify for a discounted fare. Some riders were surprised to learn about discounted options	✓	✓	✓
Riders fear losing the money loaded on card if they lose or misplace the card.		✓	
Some riders have concerns about needing to add a high value to card and losing access to that money as other financial priorities or needs might arise.		✓	
Some riders report that bus drivers will let them on without paying full fare, disincentivizing use of ORCA.		✓	
One rider didn’t replace a lost ORCA card, and the \$5 fee factored into the decision. Another rider got a card when the \$5 fee was waived.		✓	
Riders had more awareness of the senior discount compared to the ORCA LIFT discount.		✓	✓
The reduced-price monthly passes may still be too expensive for some.		✓	✓
One rider shared they don’t always have enough to pay for the Disabled RRFPP monthly pass and will pay cash (\$1.75 per ride) in months they don’t get the monthly pass.			✓
One rider may not qualify for a reduced fare option but finds full-fare transportation costs to be financially burdensome because the rider must use transit every day to commute to and from work.			✓

POTENTIAL MISCONCEPTIONS

- Several riders shared that they were not sure what the minimum reload amount was, and one stated that they don’t always have the amount needed for the minimum reload.
- One rider shared that riders can ride the bus for free if they are going a short distance, such as two stops.

⁹ The statements in the Key Insights table paraphrase or summarize issues raised in interviews. Several barriers appear in multiple sections of this memo because of overlaps between barrier type. Overlap is explored in more detail in the “Interactions and Overlap Among Personas” section on pages 12-13.

CASH IS CONVENIENT

- Will pay however is easiest in the moment and often finds cash easier because of comfort with it or because their ORCA/RRFP card does not have value on it.
- Often faces difficulties with reloading ORCA, including knowing when and where to reload and hassles with completing the reloading process.

CONVENIENCE BARRIERS in the BEHAVIORAL MAP

While several other persona barrier types are limited to specific steps, riders may face convenience barriers at most steps of the process, indicating that these types of barriers may be particularly critical to address. The earliest barrier, at **Step C** on the behavioral map, is that some riders develop familiarity with using cash when they begin riding the bus. Before they can fully explore non-cash alternatives, they have developed a habit of using cash and a comfort with the status quo; they lack motivation or interest to obtain ORCA. Many riders, however, do try ORCA. Some who try ORCA continue to use it but face intermittent barriers (at **step G** on the map) and use cash as a backup. Others revert to using cash (or cash and human services bus tickets) all the time because of hassles with replacing or renewing a lost card or hassles with reloading their card. Convenience barriers at the time of reloading ORCA are common, as noted in **steps I to L** on the map.

EXAMPLE RIDER EXPERIENCES

Amelia	Bobby	Clare
<ul style="list-style-type: none"> • Amelia is a senior who uses a walking stick. She pays with human services bus tickets or cash. She pays the senior/disabled rate of \$1 when she uses cash even though she does not have a valid RRF card. She has an expired Disabled RRF card but bus operators rarely ask to see it. She has shown the expired card when asked for proof of payment by fare enforcement. They told her she should have it renewed, but she has not done so. 	<ul style="list-style-type: none"> • Bobby is a young adult who has been riding the bus since childhood and has never thought about paying any way other than cash. He has noticed other people use ORCA, but he doesn't have a bank card and thinks it would take a long time to learn a new way of paying or using technology, so he feels cash is his only option. He is willing to take extra steps to use cash; when he gets a \$10 bill, he exchanges it for seven ones and \$3 in quarters. 	<ul style="list-style-type: none"> • Clare is an immigrant who had a habit of paying cash on the bus in another country. When she moved to the area, she began paying with cash on the bus. She briefly had an ORCA card in the past, but lost it and has no interest in replacing it. She didn't like that she was unable to easily track the money on the card. She worried about not having enough to ride and about getting stranded if she lost her card or if it ran out of money.

RIDER QUOTE

"I originally had [an ORCA card] that I had gotten like at a Link station...But then I think I just lost it. And I think that's kind of the reason that I that I stopped using it because I didn't really know where to get a new one and then I figured out I could just use the app or cash...I think I knew that I could probably like go to the Link station to get a new card, but I honestly don't use the Link very much because I just use buses, so I felt like it was kind of inconvenient to go there. So, I didn't really give it a second thought."

KEY INSIGHTS¹⁰	Never tried	Tried and discontinued	Tried and adopted
Seniors and individuals with disabilities often pay a reduced fare price when they board a bus without a card or with an expired card, so do not view getting or replacing a card as important/urgent.	✓	✓	
Riders may pay cash because they are used to paying that way and becomes a habit.	✓	✓	
Some riders need help or would need help with ORCA, but are comfortable using cash on their own, indicating that cash use could be related to self-sufficiency.	✓	✓	
Some riders who lose an ORCA LIFT or RRFP card or have it expire choose not to replace the card because of process hassles with replacement/renewal. They may not begin the process or make attempts and give up because of challenges.		✓	
Some riders do not like using ORCA/RRFP because they find it challenging to track their balance and are concerned about having the right amount. Some riders have negative experiences trying to pay without having enough money on their cards. In contrast, they feel more certain cash will work.		✓	
Some riders may experience a tension between a fear of having too much money on a card that can get lost and the feeling of being inconvenienced by the need to reload when there's too little on the card.		✓	
Riders may need to go to the Metro office or take a trip to a light rail station to reload their cards. It is often an extra trip to reload the card, and that trip needs to be paid for.		✓	✓
Some riders have challenges keeping track of their ORCA/RRFP card, so they lose or misplace it.		✓	✓
One person reported several challenges with mobile tickets, including having unreliable Wi-Fi and needing to turn data on and off to use them. Another interviewee would be comfortable using mobile tickets if there was an option for people with disabilities.		✓	✓
Riders who use ORCA/RRFP cards may need cash as a backup option when the card runs out of money or is not working. Cash may be seen as more reliable.			✓

POTENTIAL MISCONCEPTIONS

- Several riders shared instances in which their card did not work, but we are unable to confirm whether these are related to misconceptions about how the card should work. One rider each reported:
 - The card reader sporadically does not register that there is value on the card.
 - When reloading a monthly card, it would often not work for a few days after loading the value.
 - When using a monthly ORCA LIFT card, it stops working on the last 1-2 days of the month.
 - A promotional card was supposed to work for one month but only worked for two rides.
- One rider felt having a bank card was connected to the ability to use ORCA.

¹⁰The statements in the Key Insights table paraphrase or summarize issues raised in interviews.

LACK OF TRUST

- May feel concern about sharing personal information with a government agency.
- May be immigrants or have family members who are immigrants.

TRUST BARRIERS in the BEHAVIORAL MAP

There are fewer trust-related barriers than there are barriers expressed by other personas,¹¹ and they occur at fewer points in the process. However, the riders who experience these barriers may have strong emotions about the barriers, so the dynamics may be more challenging to address. Riders primarily experience trust barriers in the first phase of the ORCA card process when they are making decisions about whether to obtain and use ORCA. The first trust barrier occurs at **Step D** and is a lack of trust in the system as a whole. Riders may feel that they can't trust Metro to serve them well. Other trust barriers are related to concerns about to share personal information with an agency, which may prevent some riders from obtaining an ORCA card (**Step F**) and may prevent others from using a card (**Step G**). Barriers may become less salient once the rider has used the card several times.

EXAMPLE RIDER EXPERIENCES

Anna	Jess	John
<ul style="list-style-type: none"> • Anna is a parent with a disability who rides the bus nearly every day. She primarily pays with human services bus tickets or cash. She is very strongly opposed to King County Metro knowing her phone number and sees no reason for the agency to have that information. Despite strong feelings about privacy, she did previously apply for a Disabled RRF card. 	<ul style="list-style-type: none"> • Jess is an immigrant who speaks an uncommon dialect, and pays for transit with human bus service tickets and cash. She is extremely concerned about fare and law enforcement and avoids riding at times for fear of getting in trouble. She views ORCA payment processes, including ticket vending machines that do not have information in her language, as deliberately exclusive for her, and avoids it altogether. 	<ul style="list-style-type: none"> • John was born in the US and moved to Seattle twenty years ago. He uses cash and ORCA to go to work most days. He has some concerns about sharing personal information with King County Metro to apply for a card, but ultimately believes his information is likely being used only for transit purposes. He knows it is helpful to the agency to collect information about riding but hopes it is protected and anonymized.

¹¹Some trust barriers we learned about during our information scan were not discussed by interviewees. It is possible that more sensitive topics are less comfortable to discuss with researchers. It is possible riders were reticent to share all their fears about providing information to King County Metro with us.

RIDER QUOTE

“I don't have to ... share my personal information with Metro. Their goal is to get me where I need to go and back, their goal is not to dig into my personal life, what's going on with me, and so forth. They are concerned about getting me there. If you say [I need to share my information to get the card], for the card only, I can trust you on that. Breaking confidentiality is not professional.”

KEY INSIGHTS¹²	Never tried	Tried and discontinued	Tried and adopted
One rider has a fear of being arrested if they try to pay with ORCA and do not have sufficient funds.	✓		
Some riders may have discomfort with King County Metro collecting personal information if it's not explicit that it is for the purposes of obtaining ORCA only. They may be uncertain about Metro's purpose for collecting the information for card applications.	✓	✓	
Some riders say they do not want to share information with Metro but have already completed process of getting a Disabled RRF card or similar option.		✓	
Some riders have discomfort with King County Metro having access to their phone number specifically.		✓	
One rider is concerned the King County Metro website or transit apps may be collecting third party data.			✓

POTENTIAL MISCONCEPTIONS

- One rider was worried that the penalty for not having sufficient fare would be arrest, demonstrating anxiety around riding with insufficient fare.¹³
- Riders are uncertain whether their information is shared beyond Metro.

¹² The statements in the Key Insights table paraphrase or summarize issues raised in interviews.

¹³ Though this is not Metro's fare enforcement policy, it is possible that the rider has experienced or witnessed unfair treatment by law/fare enforcement. However, it was not explicitly mentioned in the interview.

UNAWARE OF NON-CASH OPTIONS OR PROCESS

- May not seek out additional information about transit once they identify a payment method that they can use or may try to find more information but experience language, technology, or other barriers to finding it.
- Often learn information piecemeal through word of mouth, observation, or other sources, but do not know everything about the transit payment process.

AWARENESS BARRIERS in the BEHAVIORAL MAP

Riders may experience awareness persona barriers throughout the entire process. Riders must navigate them at each stage to learn payment options, how to use ORCA/RRFP, and how to reload and renew cards before taking action. Most riders experience some awareness barriers. Some—particularly those who do not speak English—experience barriers throughout most steps, while others have awareness barriers limited to specific steps. Early awareness barriers at **Steps C-D** in the map include being unaware of reduced prices options or misconceptions about who can use a card. Those who do investigate ORCA at **Steps E-F** may not be able to find the information they need and give up. At **Step G**, riders then use ORCA, which was not described as particularly challenging by interviewees but noted as something they learned to do. More awareness barriers reemerge at **Steps I, K, L, and M** at the time of reload and renewal. Riders may be unaware of reload locations or the process to reload.

EXAMPLE RIDER EXPERIENCES

Maya	Rose	Damien
<ul style="list-style-type: none"> • Maya is an immigrant and parent with language and technology barriers. She has limited information about transit that she has acquired through word of mouth. She pays \$2.50 in cash—which she believes is the correct fare—or uses human services bus tickets for herself and her son. She could likely save money if they used ORCA LIFT or ORCA Youth and expressed interest in using ORCA LIFT when she learned about it during the interview. 	<ul style="list-style-type: none"> • Rose is a senior and an immigrant who has a Senior RRFP flash pass and typically pays in cash. She also has an Adult ORCA card, which she uses for the light rail. She got the card and reloads it at the bus agency office, and does not know how to get a reloadable card for seniors. When shopping, she heard about a free card and went to the bus agency office for it, but was told she did not qualify because she does not receive SSI. 	<ul style="list-style-type: none"> • Damien typically pays in cash on the bus. A few years ago, he became aware of ORCA at a neighborhood event. He obtained an ORCA card at a booth set up in his community. He used the card to pay about 3-4 times, but didn't know how to reload it, so he lost the card and returned to using cash. He doesn't know how to get another ORCA card and thinks it's easier to pay in cash.

RIDER QUOTE

“I don't have full knowledge about ORCA card. My concern is just the fare. Is it expensive or is it fair?...I understand as being expensive.”

KEY INSIGHTS ¹⁴	Never tried	Tried and discontinued	Tried and adopted
Several riders with limited knowledge about payment options may not seek out information because they do not think there is more to know or because they know it would be challenging due to language, disability, technology, or other barriers.	✓	✓	
Several riders do not know how to reload their cards.	✓	✓	
Some riders have curiosity about payment methods they have observed but haven't used, such as paying with a card or a phone—but not enough to seek out information.	✓		✓
Several riders only know about the King Street location for reloading and renewing their cards. One person is not sure if the office was open due to the pandemic and does not know how to find out.	✓		✓
Many riders who do not speak English have never seen transit information in their language and have learned limited information about transit payment and use through word of mouth, observation, and community organizations. Some have limited knowledge about payment options and locations where they can reload their card. Several also have challenges with using ticket vending machines.	✓	✓	✓
Some riders do not know how to track the money on their card, which causes stress, particularly for those who fear law enforcement or who shared they would have strong feelings of embarrassment if they did not have the right fare because of their culture.		✓	
Some riders are not sure how much they pay to ride.		✓	✓
Some riders learn of some payment methods but not others through community networks and don't seek out other information. For example, some riders who use primarily human services bus tickets and cash had never heard of ORCA LIFT. Several riders learned about ORCA LIFT or the Disabled RRPf card during interviews, and these riders are connected to community-based organizations.		✓	✓
A few riders could not find or understand information they needed on the King County Metro website. One rider sought out more information about ORCA LIFT after seeing an ad for it but found the website hard to navigate and did not get needed information.		✓	✓

POTENTIAL MISCONCEPTIONS

- One rider thinks the correct senior fare is \$1.75, and another thinks that's the correct disabled fare. A third rider thinks the correct adult fare is \$2.50. Another person thinks it is \$2.75 at rush hour and \$2.50 at other times.
- One rider thinks ORCA is a monthly card only that is mostly used by younger people. Another rider was unaware that it could be a monthly pass.
- Several riders who have a Senior or Disabled RRPf did not know if it is possible to put money on the card or if it's just ID. Riders who are unaware that a senior refillable card is an option may think that using a card is more expensive than using cash.
- One rider who only uses cash thinks ORCA is always cheaper than cash; another rider who only uses cash worries that the ORCA price per ride may be more expensive than cash and that the price may be related to how often a person rides the bus (i.e., more frequent riders pay less).
- One person does not think that Metro's website is up to date. For example, rides were free for a time during the pandemic, but the rider was unaware of that policy change.

¹⁴ The statements in the Key Insights table paraphrase or summarize issues raised in interviews.

Interactions and Overlap Among Personas

Though the research team hypothesized that the four personas are distinct, the interviews revealed that there is significant overlap among them. Out of 24 interviews, 21 riders shared motivations or behaviors related to more than one of the four personas, and three riders fell into all four categories. Riders may exhibit behaviors of different personas at different points in the process or they may experience barriers that intersect among more than one barrier type at the same time.¹⁵

Different Personas at Different Points in the Process

Riders didn't typically fit neatly into one persona, but rather the personas are illustrative of the different types of barriers that might be salient at different stages of the process. For example, for some riders, the initial decision to obtain an ORCA card may have been mostly about price (e.g., weighing whether ORCA would provide any savings for them, whether they felt they could manage the need to reload a quantity of money on their card, whether they were concerned about losing the card and therefore losing money). The same people then faced convenience barriers related to using and reloading their card. Price became less salient, and convenience-related decision-making became more dominant (e.g., the need to frequently check balance to know how much they have left, the closest reload location is not easy to get to or part of their routine).

Multiple Personas for the Same Point in the Process

Riders also could exhibit the behaviors of multiple barriers at the same decision point in the process. For example, one rider shared multiple barriers in their decision to obtain an ORCA card (**Step D** on the behavioral map) that spanned across all persona types:

- **Price Barriers:** The rider wants to get the most time out of the transfer window they could to increase the value of one payment. They also do not see a difference in price between cash and card because they are visibly a senior and drivers allow them to pay a reduced price with cash.
- **Cash is Convenient:** When they were given a card previously (through a promotional event), the rider found it difficult to keep track of how much money was on the card. They were unsure how to check their balance, so they had to do a lot of mental math to be sure they had enough fare to ride. This experience made them feel that getting a new card would cause more hassles for them than cash does.
- **Lack of Trust:** The rider has questions about why Metro would be collecting information from them if they apply for a card.
- **Unaware of Non-cash Options or Process:** The rider does not know where or how to reload a card, so they would need assistance from family members.

Taken together, this person is weighing concerns that span across the persona types. While the rider may prioritize certain barriers over others, it's important to note that even if one persona type is most resonant, others may also be present.

Overlapping Personas

There were several barriers that riders identified that fit into multiple barrier type categories or appeared to be one type of barrier but may have been more deeply rooted in another. Most examples of the overlap (18 out of

¹⁵Our approach to persona development were based on our initial information scan and followed standard design principles: personas are intended to illuminate users' attributes, goals or motivations, behaviors, and roles or tasks; use a number of personas that will be appropriate for the intended audience and product; and use real quotes to illustrate insights or key characteristics of the persona. Adapted from John Pruitt and Tamara Adlin, *The Persona Lifecycle: Keeping People in Mind Throughout Product Design* (San Francisco, CA: Elsevier, 2010).

21) were between the “Unaware of Non-Cash Options or Processes” persona and others, since lack of knowledge about Metro processes had clear impacts on interviewees’ perceptions of price, convenience, and trust.

Price and Unaware: At times, misconceptions or lack of awareness of certain fare options led to riders believing that they faced price barriers that were more of a result of their lack of understanding of the fare options available to them. For example, one rider perceived ORCA as more expensive but conceded that they did not know how often they should ride to get price benefit with a monthly pass. Some riders had opinions about whether ORCA provided a price advantage but were not able to articulate the reduced fare options.

Convenience and Unaware: Riders sometimes reported that a particular component of the fare payment process was inconvenient to them, but it is possible that they did not have complete information of the options available to them. Many riders reported they have to travel to an inconvenient location to reload. However, some of those riders also suggested that places like grocery stores would be a better option – in these instances, it was not always clear to the research team whether these riders were unaware of the retail options available for fare reload, or if the grocery stores convenient to them did not offer that service. It was sometimes a catchall for riders to report that getting or reloading an ORCA card is inconvenient when that declaration masked other considerations; it may therefore be inconvenient for a rider to find the information they would need. For example, one rider reported that it was inconvenient to reload and was also unable to explain how the process could be completed.

Trust and Unaware: At least one rider reported feeling deliberately excluded from information about King County Metro and fare payments, and this made them feel distrustful of the entire agency and the agency’s motives.

Overall, these overlaps demonstrate that, in some cases, what riders perceive to be price or convenience barriers may stem from their lack of awareness of Metro processes, products, or services. The overlap with the trust persona demonstrates, on the other hand, the ways in which access to information informs riders’ trust in the agency.

Behavior If/When Onboard Cash Payment Is Eliminated

All interviewees were asked the following question:¹⁶ “If using onboard cash payment was no longer an option when riding the bus, what would you do?” Often, the interviewees first reaction was that they would not be able to ride the bus anymore. These riders had all discussed ORCA in the interview prior to the question being asked, and some had familiarity with using ORCA themselves. With additional probing, many were able to identify ORCA as another option to continue using the bus. This reaction may be a function of the wording of the question, but it may also be a genuine equating of “cash payment” as any type of payment onboard the buses.

The vast majority of riders ultimately shared that they would likely use ORCA to ride the bus if onboard cash payment was not available. Several people specifically mentioned that they would look into a reduced fare option, and one person said they might shift to getting a monthly pass.

Rider Response¹⁷: I don’t know what I would do if I couldn’t use cash. I guess it means that Metro has forced me to get an ORCA card. It makes me feel the intention of Metro is convenience to the Metro system, not convenience to the passenger. I would get used to using it, but it would be nice if Metro gave me a discount on getting an ORCA card.

¹⁶The exact wording of the question may have varied slightly in some interviews.

¹⁷The interviewee declined to have the interview recorded. This paraphrased response comes from researcher notes.

Rider Quote: “I would have to conform to whatever form of payment that they had, that they needed me to, and if it was easily accessible, I could do it myself. If it wasn't, I have two older daughters that would do it for me.”

The behaviors riders expected they would take in that scenario are presented in the table below.

Reported Behavior Change	Number of Riders
Use Human Services Bus Tickets only	1
Use ORCA only	17
Use ORCA or mobile ticketing	1
Use ORCA or reduce use of public transit	2
Reduce use of public transit	3

The five riders who felt they may reduce transit use included the following:

Has never tried ORCA/RRFP <i>2 riders</i>	<ul style="list-style-type: none"> • A student who would get their driver's license or call Metro to see if they could call and ask what to do • A non-English speaker who felt like they might be forced to use ORCA but would ride less if they do not feel ORCA is a fair price
Has tried and discontinued ORCA/RRFP <i>1 rider</i>	<ul style="list-style-type: none"> • A senior, non-English speaker who prefers cash and feels that they would ride less because of the inconveniences of the card; if they did not have a card on them, they would be unable to travel
Has successfully adopted ORCA/RRFP <i>2 riders</i>	<ul style="list-style-type: none"> • A student who regularly uses a U-PASS who felt he would need to get rides with family or walk more • A non-English speaker who uses a mix of Disabled RRFP and cash who felt they would not use the bus unless they could use the card for a cheaper price

Among riders who said that they would use ORCA, many expressed concerns about needing to do so, and it is therefore possible that their transit use would also be impacted. The most common concerns were that they would need help to successfully obtain and reload ORCA and worries about running out of money on the card and not being able to travel.

Concerns and Perceived Implications of Bus Not Accepting Cash Payment	Number of Riders
Need assistance from CBO	3
Need assistance from family	2
Concerns about card not having enough value on it to ride	5
Concerns about losing/keeping track of card	2

Additionally, several riders expressed concerns about others if cash was not accepted on buses, including others in the disability community. One person was concerned his business may be impacted because tourists often pay in cash.

While many riders have concerns about not being able to pay with cash onboard buses, some riders prefer ORCA. One person who has successfully adopted ORCA described their comfort with removing onboard cash payment:

Rider Quote: “You have people fumbling around, tying up, you know, the on-board experience, whether digging through their purse or their pockets looking for a wad of pennies to clog up the machine. Yeah, I just assume have no cash on the buses. That just makes things quicker and easier to, you know, to [make] transit much smoother. I think cashless is the way to go.”

Solutions to Motivate Riders to Increase Use of Non-Cash Payment Options

Cash-paying riders face challenges with accessing and using Metro’s non-cash payment options at each step in the payment process. The research team considered the motivations, barriers, and other key insights uncovered through the interviews with these riders to identify corresponding solutions that Metro may consider to support these riders with adopting or frequently using non-cash payment methods (primarily ORCA and RRFP). MDRC offers 29 high level solutions and about 100 examples with more detail. These solutions are not meant to be exhaustive, but rather are a starting point for Metro to help determine which suite of solutions will best meet agency goals.

The solutions are organized into three categories¹⁸: 1) **systemic** solutions that would require changing policy or designing/amending structures, 2) **informational** solutions to increase awareness of Metro services and products, and 3) **individual** solutions that target changing personal thoughts, feelings, and attitudes about Metro services. About half of the solutions are systemic because of the prominence of systemic barriers in the literature and our interviews, as well as the ability for systemic changes to address both informational and individual barriers. As noted in the solutions tables, systemic solutions may be more impactful, but may also require a higher level of effort for Metro to successfully implement them. In contrast, some of the informational and individual solutions may be easier to implement but have less of an impact on helping cash-paying riders increase their adoption of ORCA. All address core behavioral barriers.

How to Read the Tables

Each table in this section distinguishes solutions that would take a lower level of effort from those that would take a higher level of effort. For each solution in the tables, our team includes the following:

- **Solution Examples:** These are specific ways the solution could be implemented by Metro.
- **Rider Personas Impacted:** This is a visual representation of how many of the named personas in in the "Example Rider Experiences" sections above could be positively impacted if this solution was implemented. A maximum of 12 riders can be depicted for each solution.
 - Each green rider (🟢) represents one of the “price barriers” riders: Elijah, Jack, or Evelyn
 - Each light blue rider (🟡) represents one of the “cash is convenient” riders: Amelia, Bobby, or Clare
 - Each dark blue rider (🟠) represents one of the “lack of trust” riders: Anna, Jess, or John
 - Each orange rider (🟤) represents one of the “unaware of non-cash options or process” riders: Maya, Rose, or Damien
- **Points on the Behavioral Map for Potential Impact:** This lists each point in the process that this solution could impact. The process points are listed as letters A through O; the process points these letters represent can be found on the attached behavioral map (Appendix B). We have also coded steps A-G (up to and including riding the bus using ORCA product) in **bold** font and H-O (through reload and renewal) in non-bold font so that readers can more easily distinguish between the first phase (obtaining and using ORCA) and second phase (reloading and renewing ORCA) of the process.
- **Suggested by a Rider:** An “X” notes that this solution was suggested by a rider. Though the interviews did not explicitly ask riders to generate solutions to their challenges, riders were asked to consider what may make it more likely for them to use ORCA. Some riders shared ideas; many of these were high-level so the research team added some detail where appropriate.

¹⁸These three categories were described in relation to barriers to riding and barriers to using non-cash fare media in the memo “Existing Information Scan and Catalog of Behavioral Barriers and Equity Concerns,” which was submitted by MDRC in July 2021.

The example solutions include a mix of those that may have limited impact or provide a stopgap as well as those that may be more lasting, for example, the temporary elimination of a fee vs. the permanent elimination of a fee. To shift motivation and behavior, **a transition period** is likely needed when riders use a combination of cash and cards, and then supports to riders to help them progressively use cash less over time.

The number of riders impacted and the number of points in the process impacted are intended to give Metro a sense of the scale of impact that an example solution could have. The rider personas demonstrate the range of persona types that a solution might impact, as well as the extent to which solutions may address barriers that are occurring for multiple personas within the same category. They are not intended to show a comprehensive report of potential impact given that a single rider persona may be representative of a barrier experienced by multiple interviewees. For the process points, it's important to note that many riders drop out of the process at the end of "Phase I" (obtaining and using a card), and there is a selection bias for who is navigating "Phase II" steps (reloading and renewal) making the population of riders who can experience Phase II barriers smaller. At this time, we may not have gathered the full set of reloading concerns that will arise as more people are able to get farther into the process. Following the tables, the research team includes a more in-depth discussion of impact and level of effort based on discussions with Metro staff and offers a recommended framework for how to consider those two factors in determining with solutions to implement.

Systemic Solutions

The solutions our team suggests most commonly have system-level or structural implications. Systemic solutions may require a higher level of investment or coordination for Metro but could also be more likely to change rider behavior. Many of these are directly related to convenience challenges and would address them by increasing access to ORCA/RRFP and reloading locations; streamlining processes for getting a card, registering it, replacing it, and renewing it; and reducing the burden of having a low e-purse value on a card. Others relate to structural price barriers and offer suggestions for increasing the perceived value of an ORCA/RRFP card, as well as making it cheaper to access and use cards. The solutions build on findings from the information scan completed by the research team in July 2021 and the key insights from the rider interviews. For example, based on the information scan, the research team hypothesized riders may be experiencing “cognitive overload,” or the inability to process too much information at once, and therefore they may be unable to process information about ORCA products and their payment structures. What riders shared about how they learn information about fare payment supported the hypothesis that people may not process all the information that Metro and others are providing; riders process information in a piecemeal fashion and make decisions with an incomplete set of information. Because riders may not be accessing and processing all the information available about payment options, Metro can consider making it simpler for riders to complete each step without putting the burden on the rider to seek out information in order to shift rider behaviors. Some ways to accomplish this are by distributing cards and offering reloading in more places where riders are; streamlining eligibility, renewal, and registration processes; and providing more non-cash options.

Solution	Solution Examples	Rider Personas Impacted	Points on Behavioral Map Addressed	Suggested by a Rider ¹⁹
Lower Level of Effort Needed				
Improve application process on the reduced fare portal.	<ul style="list-style-type: none"> Analyze data from the website to see where people are dropping off and simplify that step and the preceding one. 		L	
Higher Level of Effort Needed				
Ensure ORCA/RRFP has a price advantage over cash.	<ul style="list-style-type: none"> Bonus rides for riding using ORCA a certain number of times 		D, G, L	
	<ul style="list-style-type: none"> Bonus rides for reloading money onto the card 		D, G, L	X
	<ul style="list-style-type: none"> Extend ORCA/RRFP transfer window to make it more appealing to those who take advantage of driver negotiation 		D, G	
Provide incentive for word-of-mouth outreach.	<ul style="list-style-type: none"> Bonus rides for referring a friend to ORCA 		A, C, D	
Increase access to obtaining ORCA/RRFP.	<ul style="list-style-type: none"> Make sure all agencies that offer human services bus tickets can also connect riders to reduced-price ORCA/RRFP cards 		C, D, E, F	X
	<ul style="list-style-type: none"> Expand retail network, including more grocery stores, places EBT is accepted, retail stores, libraries, community centers, and CBOs 		C, D, E, F	X
	<ul style="list-style-type: none"> Distribute reduced-fare cards at shelters, child care centers, and other congregate care facilities to help set social norms about using ORCA/RRFP among groups of riders 		C, D, E, F	

¹⁹ Some rider-generated ideas include additional detail added by the research team.

Reduce the burden of losing or replacing a card.	<ul style="list-style-type: none"> Have cards in more stores and on the bus to make them easier to replace 		H	
	<ul style="list-style-type: none"> Permanently eliminate the fee to replace a card 		H	
	<ul style="list-style-type: none"> Allow riders to register multiple cards for the same account so they can have a backup card; the balance would go down from all registered cards when one is used 		D, G, H	
Allow people to ride with a low balance.	<ul style="list-style-type: none"> Allow cards to have a negative balance 		D, G	
	<ul style="list-style-type: none"> Provide free trips to certain reload locations if a rider taps an empty ORCA card 		D, G, I, K, L	
	<ul style="list-style-type: none"> Allow people to board with any positive balance on a card even if it is less than a full fare 		D, G	
Increase number of non-cash options.	<ul style="list-style-type: none"> Allow riders to pay onboard with a credit or debit card 		G	
	<ul style="list-style-type: none"> Allow riders to pay through their ORCA account by tapping their phones onboard (e.g., an official Metro app with a scannable barcode) 		G	X
	<ul style="list-style-type: none"> Issue human services bus tickets on a reduced fare ORCA card so that people who use those tickets already have a card and can reload it for other trips 		G, L	X
	<ul style="list-style-type: none"> Allow riders to pay with a wearable ORCA device 		G	
Make money on ORCA/RRFP cards more fungible.	<ul style="list-style-type: none"> Allow riders to remove money from cards and get a refund/cash back at reload locations 		D	
Streamline the number of reduced-fare option for riders.	<ul style="list-style-type: none"> From the riders' perspective, have a single ORCA option to apply to receive a reduced fare to ease the process and reduce stigma associated with applying for a "low-income" card; put the burden on Metro to determine the best fare option 		C, D, E, F	
	<ul style="list-style-type: none"> Reduce the number of reduced-fare choices to make it easier for a rider to determine which choice is best 		C, D, E, F	
Change the fare structure for ORCA/RRFP.	<ul style="list-style-type: none"> Use fare capping so that riders do not pay more than the price of a monthly pass and the price comparison between ORCA/RRFP and cash is more transparent 		D, G	
	<ul style="list-style-type: none"> Make the monthly pass cheaper (e.g., \$20 for RRFP) 		D, G, L	X

Informational Solutions

As noted earlier in this memo, each of the persona types includes at least some awareness barriers, such as not knowing reduced-fare options, how to reload, or what Metro may use personal information for. Some informational solutions may require minimal investments and coordination to implement, while others may be a higher level of effort. Importantly, some of the higher effort informational solutions may have a stronger impact as well. For example, not being able to easily keep track of their balance was a common concern of riders who tried using ORCA/RRFP but discontinued use. Developing a solution to make it easier for riders to access their balance could make riders who try ORCA more likely to become successful adopters. Additionally, informational barriers may be particularly pronounced for riders with language and technology challenges who are more likely to learn information through word-of-mouth and observations. Therefore, in addition to considering what information to emphasize, it may be important to consider how best to reach those riders, such as putting information in more prominent locations, using more picture-based signage, increasing the number of languages Metro communicates in, and diversifying the messengers sharing transit information.

Solution	Solution Examples	Rider Personas Impacted	Points on Behavioral Map Addressed	Suggested by a Rider ²⁰
Lower Level of Effort Needed				
Enhance messaging about ORCA/RRFP.	<ul style="list-style-type: none"> Directly address privacy concerns in messaging; be clear about why Metro is asking for any personal information that is collected 		D, E, F	
	<ul style="list-style-type: none"> Include videos on the different ways to reload prominently on the website and other distribution channels 		I, K, L	
	<ul style="list-style-type: none"> Emphasize the safety and reliability of using non-cash methods, e.g., your money can be returned to you if you lose your card, money won't expire 		D	
	<ul style="list-style-type: none"> Dispel myths, e.g., emphasize that you don't need a credit or a debit card to use ORCA, that you can use it as a monthly pass or load money as you need it 		D, E, F	
	<ul style="list-style-type: none"> Emphasize the benefits of a quicker rider with non-cash payment 		D	
	<ul style="list-style-type: none"> Discuss reload options with a rider when giving them a card in person and mail information to others about the best reload options near the person's address 		I, K	
	<ul style="list-style-type: none"> Add a feature to website or app that allows a rider to see how much money they have saved using ORCA/RRFP 		G, L	
	<ul style="list-style-type: none"> Use more pictures and non-text-based instructional material to address language and literacy challenges 		C, D, E, F, G, I, K, L	
	<ul style="list-style-type: none"> Make it clear how a rider can check their ORCA/RRFP balance 		G, I, L	
	<ul style="list-style-type: none"> Make it clearer that mobile ticketing is an option, and may be a quick, convenient backup when a card runs out of value. 		C, J	

²⁰Some rider-generated ideas include additional detail added by the research team.

Enhance messaging about mobile ticketing.	<ul style="list-style-type: none"> When discussing mobile ticketing, clarify whether a rider needs to use data on their phone to use the ticket 		C, J	
Add more messaging in prominent locations.	<ul style="list-style-type: none"> Have picture-based signage both on the bus and at bus stops for how to tap and use ORCA card 		D, G	
	<ul style="list-style-type: none"> Have a brochure at the fare box about switching from cash to ORCA; include pictures and/or multiple languages 		A, C, D	
	<ul style="list-style-type: none"> Include information about the benefits of ORCA on the back of paper transfers; include pictures and/or multiple languages 		C, D	
	<ul style="list-style-type: none"> Put more tips prominently on the ORCA/RRFP cards, e.g., use this card on bus, light rail, etc.; this card should be reloaded; reload options; instructions to check card's balance 		G, I, K, L	
	<ul style="list-style-type: none"> Diversify outreach booth locations, e.g., at flea markets, outside second hand stores, libraries 		A, C, D, E	
Improve Metro's website.	<ul style="list-style-type: none"> Add an interactive map or tool to find nearby reload locations 		K, L	
	<ul style="list-style-type: none"> Include a live chat feature for immediate assistance 		C, D, E, F, G, I, K, L, N, O	
	<ul style="list-style-type: none"> Make sure the website clearly shows up-to-date information on office hours and closings, particularly during COVID 		E, F, K, L, N, O	
Increase outreach related to reloading and renewal.	<ul style="list-style-type: none"> Have the same types of outreach for reloading and renewal as used for getting initial card (booths, community orgs, etc.) 		I, K, L, M, N, O	
Higher Level of Effort Needed				
Increase access in non-English languages.	<ul style="list-style-type: none"> Have TVMs in more languages; provide English alongside the non-English language to help with unfamiliar words 		F, L	X
	<ul style="list-style-type: none"> Have a primary CBO partner designated for each language and work together to develop campaigns that can focus on word-of-mouth information sharing 		C, D, E, F, G, I, K, L, N, O	
	<ul style="list-style-type: none"> Translate the website and marketing materials into more languages 		C, D, E, F, G, I, K, L, N, O	
Diversify the messengers of ORCA/RRFP information.	<ul style="list-style-type: none"> Enhance KCM connections with community-based organizations for more comprehensive outreach 		C, D, E, F, G, I, K, L, N, O	
	<ul style="list-style-type: none"> Conduct outreach and advertisement for ORCA LIFT via other services and offices, e.g., partnerships with unemployment, applications completed with other human services applications, include with overdue/shutoff notice from utility companies 		C	
	<ul style="list-style-type: none"> Recruit celebrities or important members from specific demographic groups for targeted ORCA campaigns 		C, D	

	<ul style="list-style-type: none"> Have an “ORCA Ambassador” on buses who speaks to people who pay in cash about ORCA 		C, D	
	<ul style="list-style-type: none"> Have Fare Enforcement officers speak to riders about ORCA options and to make sure they are connected to the best ORCA option for them 		C, D	
	<ul style="list-style-type: none"> Have community organizations or businesses that are part of the ORCA retail network use a prompt to proactively ask people about connecting with ORCA 		C, D	
Teach ORCA skills.	<ul style="list-style-type: none"> Partner with organizations that offer life skills classes to ensure skills related to using ORCA/RRFP are included in the curriculum 		D, E, F, G, I, K, L, N, O	X
Make it easier for riders to see their ORCA/RRFP balance.	<ul style="list-style-type: none"> Have places all over the county where riders can tap to show them their balance, including at bus stops, reload locations, and places that accept EBT 		G, I	
	<ul style="list-style-type: none"> Have a real-time user-friendly app that makes it easy to see the card’s balance 		G, I	X
	<ul style="list-style-type: none"> Have the balance shown in large print when a rider taps on the bus 		G, I	
	<ul style="list-style-type: none"> Connect with apps that help people check SNAP and other benefits to add ORCA balance so a customer can see all balances in one place 		G, I	
	<ul style="list-style-type: none"> Make it clear on the ORCA card reader if a rider has fewer than two rides of value left so they can reload before their next round trip 		G, I	

Individual Solutions

Individual solutions are important ways to potentially shift a rider’s behavior toward using non-cash payment options by changing their thoughts and attitudes about those payment options. These solutions do not necessarily change structural components of the process or provide new types of information, but rather nudge riders to motivate action or change the framing of how information is presented. Individual solutions are likely to take a lower level of investment or coordination than other types of solutions and can still change rider behavior. For example, framing provides the structure for how people weigh choices and make decisions, and different frames change people’s perceptions of the same set of underlying facts. Framing ORCA as an alternative to cash may make cash riders instinctively believe ORCA is “not for them” because using cash is comfortable or convenient. Alternatively, framing ORCA as a “cash” card could change a person’s mindset so that they see ORCA as a tool to complete the process in the way they want to—by paying with cash. Other framing could help convey “ease” or “free,” and Metro may consider testing how different terminology changes riders’ reactions to ORCA. Additionally, ORCA may become more appealing to riders as more members of a rider’s community use ORCA, and Metro could consider strategies to shift social norms. Other solutions in this section provide nudges to prompt action at moments when those nudges may be most salient and offer tools for people to follow through on actions they may wish to take, such as choosing higher value payment options or keeping track of their cards.

Solution	Solution Examples	Rider Personas Impacted	Points on Behavioral Map Addressed	Suggested by a Rider
Lower Level of Effort Needed				
Change the framing about how Metro labels ORCA and non-cash options.	<ul style="list-style-type: none"> Test alternative wording to "free" that communicates free 		D	
	<ul style="list-style-type: none"> Advertise ORCA as a cash card, e.g., Metro “debit cards,” “cash cards,” or “pay-as-you-go” cards 		D	
	<ul style="list-style-type: none"> Alter how ORCA LIFT is marketed to make it clearer that there is a card option for people with lower incomes 		D	
	<ul style="list-style-type: none"> Increase social desirability directly in messaging (“Why Millennials love ORCA”) 		D	
	<ul style="list-style-type: none"> Use cute ORCA mascots for the different card types to enhance branding 		D	
Develop social norms about using ORCA/RRFP to make it more desirable.	<ul style="list-style-type: none"> Share rider testimonials about savings with ORCA 		D	
	<ul style="list-style-type: none"> Use “plants” on routes with high cash use to pay with ORCA and increase norms/visibility of ORCA 		C, D	
Use nudges to reload or renew ORCA.	<ul style="list-style-type: none"> Provide text message reminders when ORCA balance is low, e.g., “you are 2 rides away from needing to reload” 		I, L	
	<ul style="list-style-type: none"> Provide text message reminders with instructions on how to renew when card is nearing expiration 		M, N, O	
	<ul style="list-style-type: none"> Put signage at store debit card readers prompting “time to reload ORCA” 		I, K, L	
	<ul style="list-style-type: none"> Get a notification at a reload location that you are nearing renewal if you reload within a month of card expiration 		M, N, O	

	<ul style="list-style-type: none"> Have targeted advertising about reloading cards at the first of the month 		I	
Create a decision tool or calculator.	<ul style="list-style-type: none"> Make the existing decision tool that lets people know what card they are eligible for more widely used or disseminated through other channels 		C, D, G	
	<ul style="list-style-type: none"> Create a comparison/calculator tool to evaluate costs and savings with ORCA (e.g., input available funds and see how many rides you get with ORCA vs. with cash) 		D	
	<ul style="list-style-type: none"> Create a decision tree/tool to help a rider understand whether they would obtain price benefit from monthly pass 		D	
Provide a way to better keep track of card.	<ul style="list-style-type: none"> Provide a lanyard or similar card holder with the card 		G	
Conduct proactive outreach to individual riders.	<ul style="list-style-type: none"> Conduct outreach through multiple channels to those who received a card but never used it or those who haven't used a card after a certain number of months, e.g., "Looks like you haven't been using your ORCA card. Do you need help learning how to use/need to replace it? Call us at [phone number]" 	   	G, H	
	<ul style="list-style-type: none"> Conduct outreach to ORCA Adult users to see if another card is a better fit; prioritize based on based on bus routes/neighborhood or CBO membership 		G	

Solution Prioritization

As Metro considers potential ways to motivate cash-paying riders to change their behavior and increase their use of non-cash fare options, two key factors to consider are impact the solution may have and level of effort it will take to implement the solution.

Impact is the extent to which Metro is able to achieve its desired outcome of increasing adoption of non-cash payment methods, particularly among its key priority populations who require support according to its equity strategy. There are multiple factors to consider to identify the potential impact of a solution:

- **Reach:** How many people will be reached or affected by the solution?
- **Importance:** Will the solution solve a core obstacle to action or understanding?
- **Depth:** How effective is the solution expected to be as a behavioral technique for the individuals it will influence?
- **Duration:** Will behavior change last?
- **Targeting:** Are the people who will be affected by the solution priority populations?

Effort is a measure of how many resources, such as personnel, time, and money, may be required to implement a solution. Like impact, it also has multiple components to consider. The following factors can help support thinking through how much effort may be required to implement a given solution:

- **Infrastructure:** Can the solution be accomplished through existing structures, policies, or processes or does it require new structures, policies, or processes? Can existing personnel implement it or will new employees need to be hired?
- **Coordination:** Can the solution be implemented within King County Metro alone? Will it require coordination with other transit or community agencies or labor unions?
- **Investment:** What is our calculation of cost or investment (in physical materials, people's time and labor, and political will) for the solution?

Identifying the potential impact and effort needed for a solution will not be exact but mapping these two criteria for solutions that are being considered can provide a framework to prioritize solutions. Consider using the tool below to map the anticipated impact and effort of solutions that could be implemented. Solutions with both the highest expected impact and the lowest level of effort would be in the top, right corner of the chart, and solutions with the lowest expected impact and highest level of effort would be in the bottom, left corner of the chart. You can then prioritize solutions approximately in order as they fall between those two corners.



Importantly, however, Metro should consider one additional factor in the final prioritization process.

Breadth is the variety of riders that the suite of solutions chosen will impact. While individually each idea that is the highest impact/lowest effort may be a high priority idea, it would be a sub-optimal use of resources to prioritize the top four ideas according to those two factors if, for example, all those ideas targeted barriers for the same persona type and the same point in the process. Riders experience price, convenience, trust, and awareness barriers. Not every solution must solve for all types, but the variety of solutions together should consider each type of rider challenge. Moreover, an individual-level solution may have a strong impact on one part of the process, but if Metro focuses on getting more people to access ORCA/RRFP cards without also focusing on increasing access to and comfort with reloading, it may not lead to successful card adoption in the long-term. In fact, more riders interviewed had tried and discontinued using cards than had never tried a card at all. Therefore, it may be worthwhile to consider:

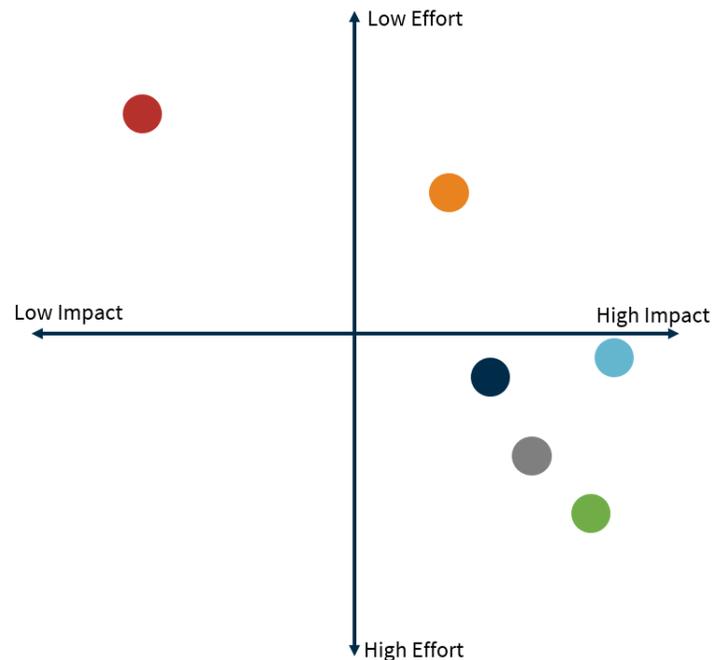
- **Persona Diversification:** How many persona types is the solution expected to impact?
- **Process Point Diversification:** How many parts of the process is the solution expected to impact? Are there solutions for both “Phase I” of the process and “Phase II” of the process?

To bring each of these factors together, Metro may consider taking the following steps:

1. Review the list of example solutions in the tables above. Determine whether there are any ideas not worth considering at this time and brainstorm whether there are other potential solutions to add that can address rider barriers.
2. With the list of solutions still under consideration, map their potential impact and effort.
3. Consider the personas and process points that will be affected by top ideas.
4. Develop a priority list of solutions based on impact, effort, and breadth.

Example Priority Solutions List

An example of a completed impact/effort chart is shown to the right. It depicts the possible placement of the solutions listed in the chart on the next page.²¹ Each solution targets different types of riders and different parts of the process, but together they could provide a more comprehensive approach to shifting the motivations and behaviors of cash riders to increase adoption of non-cash payment methods.



²¹ There is a degree of subjectivity to the exact placement of the icons, and Metro staff may have information that allows for greater precision.

Icon on Chart	Solution	Reason to Prioritize	Price	Convenience	Trust	Awareness	Phase I	Phase II
	Advertise ORCA as a cash card, e.g., Metro "debit cards," "cash cards," or "pay-as-you-go" cards	It's a relatively lower effort behaviorally informed solution that has the potential for high impact because it could change social norms and personal attitudes about card use	✓	✓		✓	✓	
	Extend ORCA/RRFP transfer window to make it more appealing to those who take advantage of driver negotiation	Every cash rider uses transfers in some way, and multiple feel strongly that cash is a better value because of the flexibility of the transfer window	✓				✓	
	Expand retail network, including more grocery stores, places EBT is accepted, retail stores, libraries, community centers, and CBOs, and make sure riders can reload where they obtain their cards	Convenience and awareness barriers dominate Phase II of the process, and a wide, visible network can help address both; also provides support for riders with low comfort with technology		✓		✓		✓
	Have a primary CBO partner designated for each language and work together to develop campaigns that can focus on word-of-mouth information sharing	Non-English speakers are more likely to rely on word-of-mouth communication and are more likely to trust community organizations and peers	✓	✓	✓		✓	✓
	Have places all over the county where riders can tap to show them their balance, including at bus stops, reload locations, and places that accept EBT	Among cash riders, not being able to track card balance and fear of running out of money were common reasons for reverting to cash after trying ORCA		✓			✓	✓
	Have a brochure at the fare box about switching from cash to ORCA; include pictures and/or multiple languages	All cash riders use a fare box, and providing accessible messaging in this location may be a low effort solution that may impact some riders			✓	✓	✓	

Appendix A: Rider Characteristics Tables

The tables below list additional information about the riders interviewed as part of this research. Each category, including the demographics table, comes from information the riders self-disclosed during the interview; it was not systematically collected from the interviewees. Therefore, the numbers included below may be an undercount. The table cell of each item that has four or more riders associated with it is highlighted in green, and the key takeaway for each table is included under the table header in italics.

	Never used card to pay ²²	Used card and discontinued/ use occasionally	Adopted card successfully	Total
Technology Use				
<i>Comfort with technology may facilitate successful card adoption.</i>				
Uncomfortable using technology	2	2	2	6
Somewhat comfortable using technology	3	3	1	7
Very comfortable using technology	0	1	6	7
Total	5	6	9	
Technology Access				
<i>Access to technology makes successful card adoption more likely in some cases, but not always.</i>				
No devices in household	1	1	0	2
1 device in household	1	1	4	6
2 or more devices in household	3	2	5	10
Total	5	4	9	
Information Sources				
<i>Successful card adopters are more likely to get information online. Unsuccessful card adopters have more varied information sources and are more likely to get information from word-of-mouth or observation.</i>				
Friends/family	0	6	3	9
Online (app, websites other than Metro's, social media)	1	2	7	10
While riding (at stop, driver, on bus)	2	5	3	10
Community or professional organization (nonprofit, school, church, doctor's office)	1	3	2	6
King County Metro (newsletter, mailings, office, phone line, website)	2	2	3 ²³	7
Claims does not need transit information	1	0	0	1
Total	7	18	18	

²²There are 5 riders who never used a card to pay, 10 riders who used a card and discontinued/used occasionally, and 9 riders who adopted a card successfully. Information is not available for every rider for each category, and more than one option can be selected per rider for the Information Sources, Demographics, and Non-Cash Payment Types Used tables.

²³Two of the three sources in this entry are King County Metro website specifically.

	Never used card to pay	Used card and discontinued/ use occasionally	Adopted card successfully	Total
Demographics				
<i>Non-English speakers, seniors, and people with disabilities are more likely to be unsuccessful card adopters. Individuals who are employed or in school and English speakers are more likely to be successful card adopters.</i>				
Disability	4	1	3	8
Employed	1	3	4	8
Student	1	1	4	6
English speaker	3	1	7	11
Non-English speaker	2	9	2	13
Senior	1	4	0	5
Parent	2	3	2	7
Total	14	22	22	
Use of Light Rail				
<i>Use of light rail may make a rider slightly more likely to be a successful card adopter, but it is not a strong effect.</i>				
Yes	1	5	7	13
No or not disclosed	4	5	2	11
Total	5	10	9	
Non-Cash Payment Types Used				
<i>The most common card type among riders who tried a card and then discontinued or limited use is ORCA Adult, though these riders may have qualified for a reduced fare option. No successful adopters are using ORCA Adult. Therefore, it is possible that getting the right reduced fare option can prompt more use.</i>				
No card	3	0	0	3
ORCA Adult ²⁴	0	4	0	4
ORCA LIFT	0	0	2	2
Disabled RRF	0	1	3	4
Senior RRF	0	3	0	3
Student/U-PASS	0	1	2	3
ORCA Recovery	0	0	2	2
Flash pass	2	1	0	3
Mobile ticketing	0	1	0	1
Total	5	11	9	

²⁴There was at least one rider who reported using their family member's ORCA card, not their own. The research team counted this as having an ORCA card.



Help Us Hear from Your Community

Engagement Opportunity with King County Metro

Elevate voices in your community



Facilitate discussions that will affect transit fare policy and decisions



Receive compensation for both your organization's and clients' time



Engage with Metro and researchers about topics you care about



You have the opportunity to support your clients with making their voices heard about their transit needs! If you choose to participate, your organization will receive compensation for your contributions. Community participants who are willing to be interviewed about their transit use will also be compensated for their time.

What is the engagement opportunity?

The [Center for Applied Behavioral Science \(CABS\) at MDRC](#) is a research organization working with King County Metro to explore barriers to transit access for populations that include recent immigrants, seniors, students, and other low-income communities. In particular, CABS is helping Metro increase knowledge about why people use cash to pay their fare on buses, including any challenges they have with accessing and using ORCA products.

To get input from people most impacted by Metro's fare policy decisions, the CABS team plans to conduct interviews with community members who may use cash to pay their bus fare. These interviews will help Metro better understand what solutions can help these populations access Metro's full range of programs, subsidies, and transit options.

HOW CAN I SUPPORT THIS ENGAGEMENT OPPORTUNITY?

MY ORGANIZATION'S ROLE

Identify and schedule clients for interviews

Facilitate 4-8 interviews

Use prepared talking points

About 30 minutes each

Provide language support, if preferred

TIMELINE

JULY

- Get your questions answered
- Share whether you are interested in engaging with Metro and CABS

AUGUST

- Attend a training run by the CABS team to learn about your role in engaging the community
- Prepare for recruitment and interviews

SEPTEMBER

- Recruit community members for interviews
- Facilitate or co-facilitate the discussions using an interview guide

OCTOBER & BEYOND

- If you would like to stay involved, your expertise and experience are welcome to help Metro and CABS better understand information shared in interviews

Questions? Reach out to David Goodman at dgoodman@kingcounty.gov or 206-263-3595

KING COUNTY METRO PROJECT DESCRIPTION
INFORMATION SHEET FOR INTERVIEWEES

King County Metro is working with a national organization, MDRC, on a research study to help them improve their programs and services. This paper describes our project and explains what it means for you.

What is the purpose of the project?

The goal of the project is to make fare payment services at King County Metro better. Therefore, we would like to talk to you about your experiences taking the bus and paying the fare.

What will we ask you about?

We would like to ask about your experience with various steps of paying for and riding the bus in King County. You do not have to answer any questions you don't want to, and you may choose to leave the interview entirely at any time. If you need (or choose) to leave earlier, we will use whatever information you have told us. The full interview should not last longer than 45 minutes. [CBO organization] staff and MDRC staff may both be present for the interview.

Do I have to participate?

Your participation in this interview is completely up to you, but we hope you will help us understand your experiences using transit to help make services better. Whether you choose to participate or not will not affect the services King County Metro or [CBO ORGANIZATION] provides you. To thank you for your help, we'd like to offer you a gift card worth \$50 for participating.

What will be done with the information I provide?

We are talking to several people like you who use King County Metro services. The MDRC team will review the information you and others give us to see if and how the services could be made better. The information you provide will be shared with King County Metro, but will not be connected to your name or contact information. We will never use your name in anything we share with others, including King County Metro staff. No reports will describe you in a way that you can be identified. If we quote you, we will use a pseudonym (fake name) for you to protect your identity. We will use the information only to understand the experiences people have using transit services better.

A member of the research team will take notes during the interview so we remember what you told us. We would also like to audio-record our discussion so members of the study team can listen to it later and transcribe what you said. You can indicate if there is something you don't want to be recorded. The research team follows strict rules to keep your information private. Any information collected for the study will be used only for research purposes. We use secure computers and data storage systems to protect your data. All study staff are trained to protect confidentiality.

What are the risks of participating in the study?

MDRC staff follow a set of strict rules to protect all data collected, and there is a small risk that your answers might be seen by people outside the team. We will share the information you provide with King County Metro, but will not share your name or contact information with them. We will otherwise keep your information private unless there is concern that you or someone else may be harmed.

What if I have questions?

You may call Emily Marano at 212-532-3200. If you have questions about your rights as a research subject, you may write to the MDRC Institutional Review Board at 200 Vesey Street, 23rd Floor, New York, NY 10281-2103 or call 212-532-3200.

Interview Protocol

Thank you for taking the time to speak with me today. As you were told, this is a research project about public transportation. I'm [NAME] and I work for [ORGANIZATION]. I'm joined today by [OTHERS ON THE CALL] from [ORGANIZATION]. MDRC is a non-profit research organization that is leading the research study.

As you may know, we are working with King County Metro, the local bus transit agency, to help them learn more about how different people use and pay for bus rides. The purpose of these interviews is to help Metro make better decisions about their fare payment services and policies. Your participation in this interview is completely voluntary and will not affect the services you receive at [AGENCY]. When you complete the interview you will receive a gift card for \$50 as a thank you for your time. We expect the interview to last about 45 minutes.

The study team follows strict rules to protect your privacy and keep your data protected. If the research team uses any information you share today, it will not identify you by name or include any other details that might reveal your identity. All of the interview data we will collect is stored securely with minimal risk that your information might be accidentally shared. The information you provide will be shared with King County Metro, but will not be connected to your name or contact information. We have provided you with an information sheet that describes the project and your role in greater detail. Please take some time to look that over now. [allow time for participant to read info sheet. Share it on the screen, if needed.] Do you have any questions about how your information will be protected? [allow time for questions].

We would like to audio record this interview. We are recording our discussion so the research team can listen to it later when we write our notes, and so that we can focus on what you are saying during our time together. If you want to say anything that you don't want to be taped, please let me know and I will be glad to pause the recorder. You can also stop the interview at any time. We use Zoom.gov to record, which is a protected, encrypted platform. Do you have any objections to being audio-recorded? [if yes and the participant speaks English or there is a translator present to translate into English, continue with notetaking. If participant does not want to be recorded and the interview will not be conducted in English, thank the participant for their time and end the interview].

Do you have any questions before we begin? [allow time for questions]

[Start recording]

Do you agree to participate in today's interview? Thank you for agreeing to talk to us.

Let me know if you need a break at any time, or if you want to skip a question. We will begin the interview now.

Part 1: Questions for all participants

To get started, I want to ask you a few questions about how you usually get around.

1. Can you share how often you ride the bus??
 - a. Only if participant ever rides the bus:

- A. Probe, *if they ever ride*: Where do you go on the bus? What is the purpose of your bus rides?
 - B. Probe, *if they ever ride*: Which bus routes do you use?
 - C. Probe, *if they ever ride*: Do you ever transfer between buses or to other types of transportation?
 - 1. Probe: Do you ever use a paper transfer to extend a trip or for a return trip?
2. How else do you get around? What makes you choose those transportation methods over the bus?
- a. Probe: Are there transportation methods—like the light rail, a bike, or walking—that you use together with the bus for a single trip?
 - b. **If the interviewee has never ridden the bus, skip to “#4” below.** Otherwise, continue to the next question.
3. When you do ride the bus, how do you pay your fare?
- a. Probe: Do you pay with cash onboard the bus?
 - b. Probe: Are there ever times that you ride the bus without paying the fare?
 - c. *If participant says they ever use cash*
 - A. How often do you pay with cash onboard the bus?
 - 1. **If always, continue on to question #4 below**
 - 2. *If they use cash sometimes/occasionally*:
 - a. Can you tell me about why you choose to use cash to pay onboard?
 - b. How do you pay when you do not use cash? Why do you use that payment method?
 - i. Probe: Do you have an ORCA card or a Regional Reduced Fare Permit?
 - ii. Probe: Are there certain types of trips when you use cash and other types when you use another payment method?
 - d. *If participant says they use a non-cash payment method*
 - A. Can you walk me through how you got the [payment method described by participant, such as ORCA card] and how you use it to pay?
 - 1. *If it’s not clear whether the payment is discounted or full fare from participant’s answer*: How much do you pay for each ride/for a monthly pass?
 - B. What do you like about using the [payment method described by participant]?
 - C. Can you share any challenges that you have using the [payment method described by participant]?
 - 1. Probe: Can you tell me about how you reload your card, if you do that?
 - D. Do you always pay this way?
 - 1. *If yes*: What do you like about [payment method] that makes you prefer it to using cash?

2. *If no:* How would you pay when you do not use [payment method described by participant]?

Thanks for sharing that. Next, I'd like to ask a few questions about how you learn about transit information.

4. Can you tell me about where you find out information about using transit, such as bus schedules or changes in service? What about where you find information for fare payment?
 - a. Probe: Do you go online, use smartphone apps, get information from family or friends, get information from an organization, use social media?
 - b. [If participant does not speak English, confirm whether the information they describe was presented in the language they needed]
5. Besides what you've described, are there other places you would prefer to receive information about transit and fare payment?
 - a. Probe: Can you describe any challenges you've had finding accurate information about transit?
 - b. **If the interviewee has never ridden the bus or never pays with cash, skip to "Part 3" below.** Otherwise, continue to the next question.

Now I'd like to ask a few questions about ORCA cards.

6. *-If the participant shared they never use ORCA:* Can you describe for me why you don't use ORCA?

-If the participant shared they sometimes use ORCA: Is there anything you'd like to add about why you don't always use ORCA that we haven't already covered?

 - a. Probe: Can you share any challenges or concerns you have about using an ORCA card?
 - b. Probe: Can you tell me about why you would or would not consider using an ORCA card?
 - c. *Based on response, group the response into the category that best fits. See example responses, though interviewer may have to use judgment to make decision about the most fitting category for the participant.*
 - A. Price barriers – if the participant mentions money or value; for example:**
 1. "It's too much money"
 2. "I can't pay the upfront \$5 card cost"
 3. "I don't qualify for LIFT/RRFP and the regular fare is too expensive"
 4. "There's no discount for a college student and I don't have the money on my own"
 5. "I don't have the money to put more than a single ride on a card at a time"
 6. "I can use paper transfers for a longer window of time"
 7. "I can sometimes get on the bus without paying the full fare"
 8. "The bus driver lets me on without the fare"
 - B. Unaware of non-cash options or process – if the participant says "don't know"; for example:**
 1. "It's the only way I know how to pay"/"How else would I pay?"

2. “I’ve heard of ORCA, but I don’t know what it is”
3. “I don’t know where to get a card”
4. “I don’t know where to load a card”
5. “I just moved here and I’m still learning how to do these things”
6. Haven’t been able to get ORCA info in primary language

C. Lack of trust – if the participant mentions privacy; for example:

1. “They need too much personal information”
2. “I don’t want to give out my name/email/other contact info to get a card”
3. “The card can be used to track me” or “I don’t want the card connected to my location”
4. Mention of ICE or immigration concern, etc.

D. Cash is convenient – if the participant talks about hassles; for example:

1. “It’s too hard to keep track of another card”
2. “It’s too hard/too complicated to reload the card”
3. “I don’t ride enough to get an ORCA card”
4. “I haven’t bothered to get ORCA yet”
5. “I don’t have a credit or debit card” or, “I don’t have a bank account”
6. “I feel most comfortable using cash”

If participant gives multiple answers, ask them to pick the one that they would rank as the most important reason they use cash. Time permitting:

- Ask the questions tailored to each persona that the participant might fit into (e.g., if they discuss both price and privacy concerns).
- Ask lack of trust/privacy questions to recent immigrants or others where privacy may be a concern (e.g. unstably housed) even if it is not specifically raised by the participant

Part 2: Tailored questions

1. **Price Barriers** personas (if answered in category A).

I am going to ask you some questions about how price affects your decisions about transit, and about some different types of transit options that have different prices.

1. Can you tell me what you know about discounted Metro fare options?
 - i. Probe: What do you know about ORCA LIFT or Regional Reduced Fare Permit (RRFP)?
 - ii. Probe: What do you know about the eligibility requirements for these programs? Do you know if you qualify for any of them?
2. *Show participant the sheet of fare options [Describe if interview is phone only].* Here are some of the different payment options that Metro offers to help people make payments if they meet certain eligibility requirements. Can you look at this sheet and point out any payment options that look like they might be a good fit for you?
 - i. Probe, *if they say they qualify for a discounted card but don’t have one:* Have you ever looked into getting [payment type]? Would you consider getting it?

3. Take a moment to think about how much you would be comfortable paying for a monthly transit card. How much did you come up with, and how did you get that number?
 - i. Probe: How about if you paid per trip? How much would be comfortable paying to use the bus for trips you need to take? How did you get to that amount?
 - ii. If you were able to get a discounted card with for that amount, would you get an ORCA card? Why or why not?
 4. Think of the last time you rode the bus. Can you describe to me how you made the decision to ride transit, and how you made the decision to pay?
 - i. Probe: Can you describe what benefits you experience when paying cash onboard, compared to using a non-cash payment method such as an ORCA card?
 5. Can you describe for me any times you went onboard without paying the fare? How did you weigh the risks of boarding without paying?
2. **Unaware of non-cash options or process** (if answered in category **B**).
Next, I am going to ask you some questions about what information you know or have learned about the transit system.
1. Can you tell me about the different ways you know someone can pay to ride the bus? How did you learn about those options?
 2. What information about transit do you want to know or feel uncertain about?
 3. [If participant does not speak English] Can you describe to me where you have learned information about using transit in [participant's language]?
 - i. Probe: Have you learned about using transit in [participant's language] at an organization, from family/friends, receiving mail, social media?
 4. [Present Metro marketing material] Take some time to look this over. Looking at this [flyer/mailler], how comfortable do you feel about what you need to do to get an ORCA card?
 - i. What would be your next step to get an ORCA card?
 1. Probe: How likely is it that you would consider getting an ORCA card? Why do you say that?
 - ii. Probe: What is confusing about this information?
 5. What could Metro do that would make you more likely to get an ORCA card?
3. **Lack of trust groups** (if answered in category **C**).
Next, I am going to ask some questions about how you prefer to share information with agencies such as King County Metro.
1. What concerns do you have when you think about sharing personal data with Metro?
 - i. Probe: What do you think Metro uses your personal data for?
 - ii. Probe: How do you feel about sharing this information with Metro? [Present email, phone number, name, address one at a time.]
 2. Now, thinking beyond Metro, what types of organizations or services do you feel comfortable sharing personal information like your name and contact information?

- i. Probe: What about them makes you feel comfortable?
- 3. Not all ORCA cards require that you provide personal information. If you did not have to provide any personal info when getting the card, how comfortable would you feel comfortable using an ORCA card?
 - i. Probe: What makes you say that?
- 4. **Cash is convenient** persona (if answered in category **D**)

Next, I am going to ask you some questions about the process of getting an ORCA card.

 - 1. Can you describe for me how you can get an ORCA card?
 - i. Probe: Do you have any previous experience getting an ORCA card?
 - 2. From what you know about the process to get an ORCA card, which steps are hardest or most frustrating for you to complete?
 - i. Probe with parts of the process such as finding out where to go to get the card, understanding income eligibility for subsidized programs, submitting paperwork/documentation, etc.
 - 3. In an ideal world, how or where would you be able to get a card?
 - i. Probe: What would make it easier for you to get a card?
 - 4. Can you describe for me how you can reload an ORCA card?
 - i. What is the closest reload location to your home or work? Where are some other places you know you could go to reload?
 - ii. Probe: Do you have any previous experience getting an ORCA card?
 - 5. In an ideal world, how or where would you be able to reload your card?
 - i. Probe: What would make it easier for you to reload your card?
 - 6. Do you carry other types of cards with you when you go out?
 - i. Probe, *if yes*: Do you think you would find it harder or easier to keep track of an ORCA card than those types of cards? What's different about an ORCA card?
 - 7. What would make a card more convenient than cash for you?

Part 3: Time-Permitting: Questions for All Participants, Part 2

We have a few more questions for you about how you get information about transit, your use of technology, and your final thoughts on using ORCA cards compared to onboard cash payment.

- 1. If using onboard cash payment was no longer an option when riding the bus, what would you do?
 - a. Probe: How would you get around if onboard cash payment was no longer an option?
 - b. Probe: What is the main challenge or difficulty you would face if onboard cash payment was no longer an option?
 - c. Probe: What are your thoughts about getting a transit card like ORCA?
- 2. What benefits do you see to using an ORCA card rather than using cash?
 - a. Probe: With an ORCA card, you can transfer between transit agencies. For example, you can go from the bus to the light rail without getting another ticket. How important is that to you?

- b. Probe: If you're eligible, you can get reduced fares with an ORCA card. How important is that to you?
3. Can you describe what types of devices, such as a smartphone, you use on a regular basis?
 - a. Probe: do you use these in your home, at the library, or somewhere else?
4. How comfortable do you feel when you need to use a new type of technology, such as an online payment or downloading and using a new app?
 - a. Would you feel comfortable using your phone to pay your bus fare?
 - b. Can you tell me about how you feel about using a ticket vending machine before getting on a bus? How easy or difficult using that might be for you?
5. Is there anything else you would like to tell me about your experiences with using transit and paying for the bus?

That's all my questions today. Thanks again for your time. As a thank you for participating in this interview, we you will receive a \$50 gift card. The card will be sent to you via e-mail and you will be allowed to select the retailer of your choice. Thank you.

[end the recording]

Appendix G - ORCA Fare Types, Eligibility Requirements, and Purchasing Locations

	RRFP for People with Disabilities	RRFP for Seniors	ORCA Youth	ORCA LIFT ¹	Adult ORCA
					
Eligibility	Proof of temporary or permanent disability status	Proof of 65 years or older	Proof of 6 through 18 years of age	Proof of income at or below 200% Federal Poverty Level	N/A
Where card can be obtained					
King Street Center Pass Sales Office	✓	✓	✓	✗	✓
King Street Center Public Health Office	✗	✗	✗	✓ ²	✗
Metro Neighborhood Pop Up	✓	✓	✓	✗ ³	✓
Vending machines	✗	✗	✗	✗	✓
Retail locations	✗	✗	✗	✗	✓
By phone	✗	✗	✗	✓	✓
By mail	✗	✓	✓	✗	✓
Online ⁴	✓	✓	✓	✓	✓
First card fee	No fee	No fee	No fee	No fee	\$5 ⁵
Replacement fee⁶	\$3	\$3	\$5	\$3	\$5
Metro bus fare⁷	\$1	\$1	\$1.50	\$1.50	\$2.75
Picture required	Yes	No	No	No	No
Registration required	Yes	Yes	No ⁸	Yes	No

¹ ORCA LIFT cards appear the same as Adult and Youth cards on the front but show an expiration date on the back.

² Customers can also enroll in the subsidized annual pass at this ORCA LIFT location.

³ ORCA LIFT cards can be replaced at Neighborhood Pop Up but cannot be obtained for the first time or renewed there (unless Public Health or another ORCA LIFT network partner is present).

⁴ Adult ORCA cards can be obtained at orcacard.com; Senior RRF, Disability RRF, ORCA Youth, and ORCA LIFT cards can be obtained online at reducedfare.kingcounty.gov

⁵ Fee will be reduced to \$3 at the launch of new ORCA (expected May 2022)

⁶ All card replacement fees will be \$3 at the launch of new ORCA (expected May 2022)

⁷ Access Transportation customers pay \$1.75 per trip and can use ORCA pass products through a manual backend process. King County Water Taxi reduced fares are between \$2.50 and \$4.50, depending on route and fare type.

⁸ Only requires to be registered with a youth's date of birth due to privacy reasons.