

Title VI Fare Equity Analysis for Migration to E-Fare



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Prepared for TriMet

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Executive Summary

This report documents TriMet's fare equity analysis of its proposed migration to an integrated electronic fare payment (e-fare) system including related public engagement efforts. The purpose of the fare equity analysis is to determine, prior to implementing changes to the fare system, whether the planned changes will have a disparate impact on the basis of race, color, or national origin, or if low-income populations will bear a disproportionate burden of the changes.

The fare equity analysis involved a technical analysis using rider survey data and public input collected through a community engagement process. Public input collected from TriMet's Transit Equity Advisory Committee (TEAC) and community based organizations (CBOs) that work with minority and low-income populations informed TriMet's decision-making process in further refining the e-fare system concept.

Early in the e-fare planning process (January 2015), TriMet used rider survey data to conduct a preliminary fare equity analysis of draft e-fare policies addressing areas such as access, payment methods, price, fare products, and transfers. TriMet addressed some of the initial findings of disparate impacts and disproportionate burdens through early mitigation measures that included maintaining paper transfers for cash/ticket payment and maintaining the sale of paper 1-Day Passes on the bus. TriMet also elected to establish the card fee at \$3 instead of \$3.50, and to maintain the same price for 2 ½ Hour Tickets for both cash payment and eFare. While TriMet's long-term goal is to phase out many of the paper tickets and passes in the current fare system, these options will remain available to customers with the initial implementation of the e-fare system.

From September-December 2015, TriMet worked with CBOs to plan and conduct public engagement meetings regarding the proposed e-fare policies and potential mitigations. Participants at the CBO meetings generally welcomed the idea of the e-fare system and particularly liked the benefits of the fare caps, lost value protection, ability of stored value to roll over, and the broader range of options to pay fares.

Common concerns identified through public engagement were the costs of multiple e-cards for families, gaps in access to the retail network, and the security of personal information used in e-card registration. None of the concerns rose to the level of opposition to the program but generally reflected a desire to further improve and expand the benefits of eFare. Suggestions offered at the CBO meetings to improve the program included a new option for a family card, the ability to use the e-card or the e-fare mobile app to pay from the same account, the ability to use a mobile phone number for e-card registration in lieu of an email address, extensive education on e-fare to diverse communities, and a key ring size e-card.

TriMet's equity analysis found that the following e-fare policies will have *no* disparate impact or disproportionate burden, and were not identified as high concerns through the public input process:

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- Elimination of mail-order purchasing of fare media
 - Increase to 500+ retail outlets
 - New fare caps available with e-fare
 - Elimination of 7-Day Pass
 - Elimination of 14-Day Pass

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

- Automatic reload option for e-card using a credit/debit card (potential disparate benefit)
- New fare medium to pay fares using a contactless smart credit/debit card (potential disparate benefit)
- \$5 minimum load requirement for e-card

And through the public engagement process two issues in particular were frequently raised that were not identified in the technical analysis:

- \$3 e-card cost (impact on families in particular)
- Barriers to e-card registration, including concern about providing personal information and the requirement to provide an email address when registering the e-card

TriMet staff recommends implementing several mitigation measures to address these findings:

- Distribute at least 100,000 free e-cards during the initial period, with particular effort to reach minority, low-income, and limited English proficiency populations.
- Longer term provision of free e-cards through TriMet's Access Transit fare programs.
- Add more locations to the retail network, specifically in minority and low-income neighborhoods.
- Establish a lower minimum load requirement at certain locations, such as TriMet's Pioneer Square Ticket Office.
- Establish the option to register the e-card by phone, providing only a username and PIN (instead of email address). Interpretation services in multiple languages will also be available to customers who register by phone.
- Explore opportunities to address the needs of large families.
- Provide training and technical assistance to CBOs on how to purchase and distribute fares for their clients in the e-fare system.

Fare Equity Analysis for Migration to E-Fare

Introduction

This report documents TriMet’s fare equity analysis of its proposed migration to an integrated electronic fare payment (e-fare) system including related public engagement efforts. The fare equity analysis was performed in accordance with the requirements of the Federal Transit Administration’s Circular 4702.1B, *Title VI Requirements and Guidelines for Federal Transit Administration Recipients* and TriMet’s 2013 Title VI Program. The purpose of the fare equity analysis is to determine, prior to implementing changes to the fare system, whether the planned changes will have a disparate impact on the basis of race, color, or national origin, or if low-income populations will bear a disproportionate burden of the changes.

The report is structured by draft e-fare policy. For each policy, first the results of the technical analysis using rider survey data are described, including any findings of a potential disparate impact on minority¹ populations or a potential disproportionate burden on low-income² populations. Then the public input received on the policy is highlighted in a text box. From September-December 2015, TriMet worked with community based organizations (CBOs) to plan and conduct public engagement meetings regarding the proposed e-fare policies and potential mitigations. The input collected through this process provided important insights from minority and low-income individuals about if and how they would use the e-fare system and how policies might affect them.

TriMet staff will provide a copy of this analysis and present the recommended e-fare policies to the TriMet Board of Directors in January 2016. Both the technical analysis and the public engagement results will inform the Board’s decision-making process on the basic features of the e-fare system.

Background

TriMet’s goals in transitioning to the e-fare system include offering customers a fast, convenient, and secure approach to paying their fares and to increase operational efficiencies. Early in the e-fare planning process (January 2015), TriMet used rider survey data to conduct a preliminary fare equity analysis of draft e-fare policies addressing areas such as access, payment methods, price, fare products, and transfers. Table 1 outlines the draft e-fare policies analyzed in the preliminary fare equity analysis. The initial findings provided content for early community engagement

¹ “Minority” is defined as all races/ethnicities besides white, non-Hispanic.

² “Low-income” is defined as at or below 150% of the federal poverty level set by the Department of Health and Human Services.

efforts regarding e-fare in 2015 and helped frame issues for discussion in this formal Title VI analysis.

Table 1: Draft E-Fare Policies Analyzed in Preliminary Analysis (January 2015)

| Policy Area | Proposed Change |
|----------------------|--|
| Access | Increase to 500+ retail outlets Eliminate mailing fare media (passes) Paper 1-Day Pass no longer available for purchase on bus |
| Payment | Automatic reload option for e-card |
| Fare Medium | New fare medium - contactless smart credit/debit card |
| Price | Costs for e-card (\$3 fee, \$5 min. load) New fare caps on e-cards only |
| Fare Product Options | Eliminate 7-Day Pass Eliminate 14-Day Pass |
| Transfers | Eliminate Transfers with Cash/Ticket Payment |

Title VI Public Engagement

The public engagement activities related to the fare equity analysis were conducted ahead of TriMet’s broader public education and outreach on e-fare, planned for 2016. Therefore, the preliminary Title VI outreach provided an opportunity to both educate select residents in the TriMet service district on the proposed e-fare changes and to collect input directly from minority and low-income persons on how e-fare may affect them. A detailed description of the public engagement process is provided on pages 6-7. Public input collected from TriMet’s Transit Equity Advisory Committee (TEAC) and CBOs that work with minority and low-income populations informed TriMet’s decision-making process in further refining the e-fare system concept.

Preliminary Findings

In December 2015, TriMet updated the preliminary fare equity analysis that was conducted in January 2015 to reflect the most recent e-fare policies. The preliminary equity analysis had identified the following six draft e-fare policies as those that could result in possible disparate impacts and/or disproportionate burdens:

- Elimination of transfers with cash/ticket payment
- Paper 1-Day Pass no longer available for purchase on bus
- \$3 card fee for initial card and replacement card, in the scenario where the cash transfer is eliminated

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- \$5 minimum load requirement for e-card
 - Automatic reload option for e-card using a credit/debit card (potential disparate benefit)³
 - New fare medium to pay fares using a contactless smart credit/debit card (potential disparate benefit)

Early Mitigations

Per the guidelines in the FTA Title VI circular, findings of disparate impact or disproportionate burden call for steps to avoid, minimize, or mitigate impacts where practicable. Thus, in response to the preliminary analysis findings as well as TEAC and public input regarding hardships for transit-dependent riders, TriMet addressed the first three findings by:

- Maintaining paper transfers for cash/ticket payment, and
- Maintaining the sale of paper 1-Day Passes on the bus.

While TriMet's long-term goal is to phase out many of the paper tickets and passes in the current fare system, these options will remain available to customers with the initial implementation of the e-fare system.

Remaining Findings

Three remaining e-fare policies may have potential disparate impacts on minority individuals and potential disproportionate burdens on low-income individuals:

- Automatic reload option for e-card using a credit/debit card (potential disparate benefit)
- New fare medium to pay fares using a contactless smart credit/debit card (potential disparate benefit)
- \$5 minimum load requirement for e-card

The first two policies were identified as having potential disparate benefits because minority and low-income individuals would be less likely to take advantage of these benefits to the same degree as non-minority and non-low-income individuals, who are more likely to have credit/debit cards. The minimum load requirement may be a hardship on individuals who cannot afford to load \$5 at a time onto the e-card – for example, Honored Citizens and youth (whose day passes cost \$2.50) or riders who complete their day's travel on TriMet using a \$2.50 single fare.

TriMet worked with CBOs in November and December 2015 to collect input on these and other proposed e-fare features from minority, low-income, and limited English proficient individuals.

³ This policy option was originally analyzed as a new payment method by bank account to facilitate loading value manually or automatically reloading value onto the e-card. Following the preliminary analysis, it was clarified that this option will require a credit/debit card, which riders can currently use to purchase fares. The policy was reworded to focus on the new automatic reload option.

In addition to the three findings from the technical analysis, two other concerns were frequently cited during the public engagement process:

- \$3 e-card cost (impact on families in particular)
- Barriers to e-card registration, including concern about providing personal information and the requirement to provide an email address when registering the e-card

The next sections of the report describe TriMet’s approach to the technical analysis and process to collect early input on how proposed e-fare policies and features may affect minority and low-income populations in the service district. In the following section the technical analysis results and public feedback are presented per draft e-fare policy, followed by a discussion of planned and possible mitigation measures.

Fare Equity Technical Analysis

It is important for fare equity analyses to examine both scenarios where minority and low-income riders may bear a greater share of negative impacts, or experience a lesser share of positive impacts than non-minority and non-low-income riders. TriMet evaluated draft e-fare policies for both.

Methodology

The first portion of the technical equity analysis used data from the 2012 TriMet on-board survey on fares. The survey was conducted from October to December 2012 and included 16,982 respondents. The data represented one-way trips, not individual riders, and was weighted to adjust for transfers and ridership by route type. Given different ridership patterns, weekday trips were evaluated separately from weekend trips in the analysis.

While most of the policy options could be analyzed using this rider survey data, a few options could only be analyzed using demographic data and GIS maps to evaluate the policy impacts on minority and low-income populations compared to non-minority and non-low-income populations. See Appendix A for the step by step methodologies used to conduct the technical analysis.

TriMet’s Disparate Impact and Disproportionate Burden Policies

TriMet applied the following policies in determining if the draft e-fare policies may result in disparate impacts on minority populations or disproportionate burdens on low-income populations.

Disparate Impact Policy – Minority Populations

Transit providers are required to develop a policy for measuring disparate impacts. The policy establishes a threshold for determining when the adverse effects of fare changes are borne

disproportionately by minority populations. The disparate impact threshold must be applied uniformly, regardless of mode, and cannot be altered until the next Title VI Program submission. The following is TriMet's disparate impact policy regarding fare changes, established in its 2013 Title VI Program:

For fare changes, a potential disparate impact is noted when the percentage of trips by minority riders using a fare option, in combination with the percentage price change for that option, has an impact that exceeds the comparable impact on non-minority riders.

Differences in the use of fare options between minority populations and other populations include all such differences that are documented as statistically significant at the 95 percent confidence level.

Disproportionate Burden Policy – Low-income Populations

While low-income populations are not a protected class under Title VI, the Federal Transit Administration requires transit providers to evaluate proposed fare changes to determine the relative impact on low-income populations. Transit providers are required to develop a policy for measuring disproportionate burdens on low-income populations, which establishes a threshold for determining when the adverse effects of service changes or fare changes are borne disproportionately by low-income populations. The following is TriMet's disproportionate burden policy regarding fare changes, established in its 2013 Title VI Program:

As defined by TriMet, a person whose household income is at or below 150 percent of the poverty level set by the U.S. Department of Health and Human Services (HHS) is considered low-income.

For fare changes, a potential disproportionate burden is noted when the percentage of trips by low-income riders using a fare option, in combination with the percentage price change for that option, has an impact that exceeds the comparable impact on non-low-income riders.

Differences in the use of fare options between low-income populations and non-low-income populations include all such differences that are documented as statistically significant at the 95 percent confidence level.

TriMet's disparate impact and disproportionate burden policies define differences in the use of fare options between minority/low-income and non-minority/non-low-income populations as those that are statistically significant at the 95 percent confidence level. Therefore, where the results showed differences that were not statistically significant, TriMet found no disparate impact or disproportionate burden.

A summary of the technical analysis results and the survey data used to evaluate each policy option are included in Appendix B. The results are described in further detail by e-fare policy below.

Public Input Activities on Draft E-Fare Policies and Mitigations

TriMet's public engagement efforts played an important role in the equity analysis process. Direct input from the TEAC and minority and low-income community members on the anticipated impacts of the e-fare policies complemented the technical analysis by qualitatively testing some of the findings and providing additional insights beyond the survey data analysis.

TriMet conducted both internal and external outreach regarding its Title VI fare equity analysis. The internal outreach involved updating TEAC on the progress of the equity analysis and collecting input on external outreach strategies and the interim reports. The equity analysis results also underwent review by TriMet's General Manager and executive leadership. Media and Customer Service staff helped review materials and arranged for translation and interpretation services for the external outreach.

The external outreach involved partnering with community based organizations (CBOs) to collect meaningful input on the potential impacts of e-fare on their constituents. The CBOs work with communities of color, low-income populations, individuals with limited English proficiency, youth, immigrants, and refugees. About 140 constituents and staff provided input across seven meetings hosted by the CBOs in locations throughout TriMet's service area.

TriMet's consultant for the fare equity analysis, KFH Group, contracted with each CBO to arrange for logistics, host the meetings, invite their constituents, and provide a report on the meeting(s) the CBOs hosted. The moderator guide used by CBO staff and TriMet staff is attached as Appendix C. TriMet translated this guide into Spanish and provided interpretation during the meetings in Spanish, Arabic, and Nepali. Somali participants at one of the meetings brought their own interpreter. The CBO reports of discussion points and takeaways can be found in Appendix D, and the input received across all meetings is summarized per e-fare policy below.

The following CBOs hosted public engagement meetings:

- Asian Pacific American Network of Oregon (APANO) hosted a meeting in southeast Portland.
- Black Parent Initiative (BPI) hosted a meeting in northeast Portland.
- Center for Intercultural Organizing (CIO) hosted two meetings in Beaverton (Washington County).
- Gladstone High School hosted a meeting in Gladstone (Clackamas County).
- Latino Network hosted a meeting in central Portland.
- Native American Youth and Family Center (NAYA) hosted a meeting in northeast Portland.

Table 2 details the meetings that were conducted and the number of constituents that participated in each. Each meeting consisted of an introduction by the CBO, an overview of the proposed e-fare system (“Hop 101”) presented by TriMet staff, and a series of discussion questions facilitated by the CBO and supported by TriMet.

Results by Draft E-Fare Policy

TriMet initially identified nine proposed e-fare policies that could impact minority and low-income populations differently than non-minority and non-low-income populations. The equity analysis found that five of the e-fare policies will have **no** disparate impact or disproportionate burden, and were not identified as high concerns through the public input process. The evaluation results for these policies are presented first, followed by the e-fare policies where the technical analysis or the public engagement process found potential Title VI impacts.

For the draft policy options that TriMet evaluated as benefits, beyond noting potential disparate impacts or disproportionate burdens, the results also highlight instances where minority or low-income riders may experience a greater share of the benefits than their non-minority and non-low-income counterparts.

E-Fare Policy Options with No Disparate Impact/Disproportionate Burden Findings

The technical analysis found that the following policy options were not likely to result in disparate impacts and disproportionate burdens:

- Elimination of mail-order purchasing of fare media
- Increase to 500+ retail outlets
- New fare caps available with e-fare
- Elimination of 7-Day Pass
- Elimination of 14-Day Pass
- \$3 card fee for initial and replacement e-card*

*While the technical analysis did not find disparate impacts or disproportionate burdens when evaluating survey data related to the \$3 one-time card fee for initial and replacement e-cards, so long as cash transfers are maintained, this fee was a common concern cited during the public engagement process and is therefore included with the policies that have potential Title VI impacts.

Eliminate Mail-Order Purchasing of Fare Media (Passes and Cards)

Explanation

TriMet riders can currently order 2 1/2-Hour Tickets, 1-Day Passes, and 1-Month Passes online and have them delivered by mail. The proposed policy would eliminate this option for riders in

Table 2. E-Fare Title VI Public Engagement Meetings

| Meeting Date and Time | CBO Host and Location | Geographic Area Focus | Number of CBO Attendees | Minority Demographic Groups Identified Among Participants | Language Translation at Meeting |
|--------------------------------------|--|-----------------------|----------------------------|---|---|
| Friday Nov. 13, 2015 10:00 am | BPI 2915 NE Martin Luther King Blvd Portland, OR 97212 | Multnomah County | 4 constituents 4 staff | African-American, female teen parents receiving public assistance & middle class individuals | None |
| Thursday Nov. 12, 2015 6:00 pm | APANO 2788 SE 82nd Ave, Suite 203 Portland, OR 97266 | Multnomah County | 5 constituents 1 staff | Asian and Pacific Islanders | None |
| Thursday Nov. 12, 2015 3:00 pm | Gladstone High School 18800 Portland Ave Gladstone, OR 97027 | Clackamas County | 4 constituents 1 staff | Latino | None |
| Monday Nov. 23, 2015 6:00 pm | Latino Network 410 NE 18th Ave Portland, OR 97232 | Multnomah County | 15 constituents 2 staff | Latino | Spanish presentation, with English translation of discussion |
| Monday Nov. 30, 2015 4:00 pm | NAYA 5135 NE Columbia Blvd Portland, OR 97218 | Multnomah County | 13 constituents 1 staff | Native American, majority female, about half low- income | None |
| Thursday Dec. 3, 2015 6:00 pm | CIO 12625 SW Broadway, Suite 200 Beaverton, OR 97005 | Washington County | 40 constituents 1 staff | Arabic, Latino & African | English presentation, translated to/from Spanish & Arabic |
| Saturday Dec. 5, 2015 1:30 pm | CIO 12625 SW Broadway, Suite 200 Beaverton, OR 97005 | Washington County | 48 constituents 1 staff | Arabic, Latino, African, Bhutanese, Asian Pacific Islander | English presentation, translated to/from Nepali, Arabic, Spanish & Somali |

order to encourage migration to e-fare, streamline operations, and reduce costs associated with supporting labor-intensive mail order programs.

Analysis

TriMet evaluated this policy option for the potential adverse effects on riders that currently purchase fare media to be delivered by mail. Overall, riders buy passes to deliver by mail for 2.4% of the weekday trips, including 2.1% of the minority trips and 2.4% of the non-minority trips. The difference between minority and non-minority mail-order purchasing is not statistically significant, so ***no disparate impact is found***.

Riders buy passes to deliver by mail for 1.9% of the weekday low-income trips and 3.1% of the non-low-income trips. A lower percentage of low-income trips would experience the adverse effects if TriMet stopped allowing riders to buy passes through the mail, and the difference is statistically significant, so ***no disproportionate burden is found***.

Overall, riders buy passes to deliver by mail for 1.6% of the weekend trips, including 1.6% of the minority trips and 1.5% of the non-minority trips. The difference between minority and non-minority mail-order purchasing is not statistically significant, so ***no disparate impact is found***. Riders buy passes to deliver by mail for 1.2% of the weekend low-income trips and 1.7% of the non-low-income trips. The difference between low-income and non-low-income mail-order purchasing is not statistically significant, so ***no disproportionate burden is found***.

Public Input on Eliminating Mail-Order Purchasing of Fare Media

- No concerns were raised – participants focused on whether the retail network would meet their needs

Increase to 500+ Retail Outlets

Explanation

The proposed retail network, where riders would be able to purchase and load value onto e-cards (in addition to online, through the mobile app, or by phone), would increase by over 500 stores, located throughout the TriMet service district.

Analysis

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

As background, TriMet first mapped the minority and low-income populations within the service district. Figure 1 depicts the percentage of minority persons per block group in TriMet's service area.⁴ Out of 942 total block groups, 364 have a minority population above the service area average (27.2%).

Figure 2 depicts the percentage of low-income individuals per block group. TriMet defines low-income as those earning less than 150% of the federal poverty level. Out of 942 total block groups, 388 have a low-income population above the service area average (22.4%). These block groups are spread throughout the service area, though particularly within the City of Portland.

As of December 2015, TriMet is planning to add 500+ new retail outlet locations where riders may purchase fares. The current and proposed locations of outlets were mapped, with half mile "buffers" around them. If the centroid of a block group fell within the half mile buffer, the population of that block group was considered as having access to a retail location. Figures 3 and 4 portray the current and proposed retail network overlaid on the minority and low-income populations, respectively, within the service district.

TEAC Recommendation
TEAC recommends focusing on recruiting employers to participate in e-fare as a way to effectively expand access to the system.

Table 3 shows the minority and low-income populations that have access to the current and proposed retail locations. Currently, 86,604 minorities and 77,960 low-income individuals have access to retail locations. Once the proposed retail network is in place, this will increase to 225,937 minorities, or 56.0% of the minority population in the service district, and 205,803 low-income individuals, or 62.7% of the low-income population in the service district. Greater percentages of both minorities and low-income individuals will have access to the proposed network than non-minorities (48.6%) and non-low-income individuals (47.1%), so ***no disparate impact or disproportionate burden is found***. It is worth noting that higher percentages of the minority and low-income populations have access to the current network, and this will remain the case with the proposed network.


In addition, TriMet examined the growth in access for each population once the proposed retail network is in place. Access would increase for all populations, and the change in access for minorities (+34.5%) and low-income individuals (+39.0%) is greater than that of non-minorities (+30.4%) and non-low-income individuals (+29.4%). Therefore, ***no disparate impact or disproportionate burden is found***.


⁴ TriMet considers a block group that straddles its service area boundary within the area if at least 50 percent of the block group's dwelling units appear inside the boundary based on inspection of aerial imagery.

Figure 1: TriMet Service Area Minority Population

 TriMet Service District

Minority - Above and Below Service Area Ave.

 Less than 27.1%

 27.2% and above

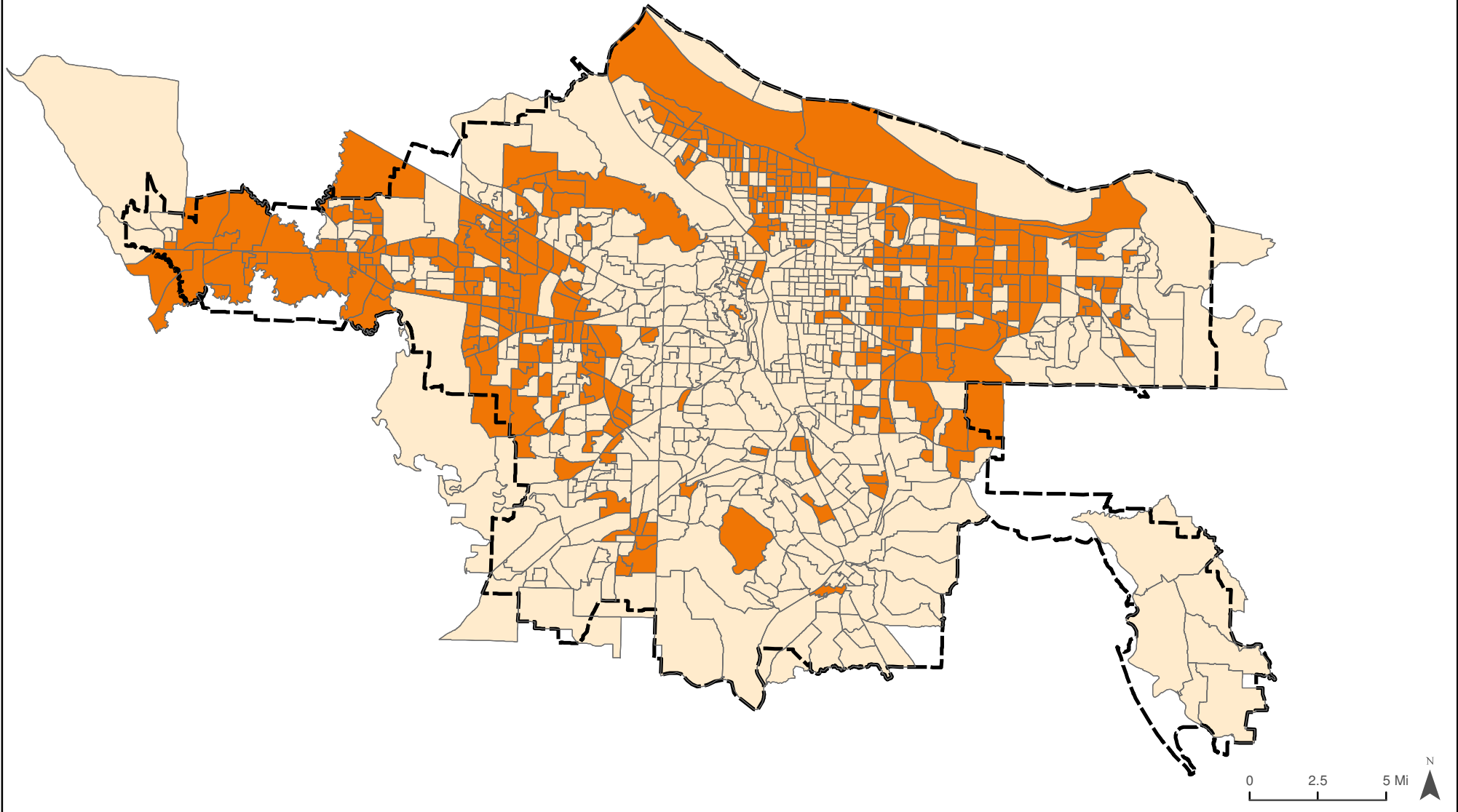




Figure 2: TriMet Service Area Low Income Population

 TriMet Service District

Low Income - Above and Below Service Area Ave.

 Less than 22.4%

 22.5% and above

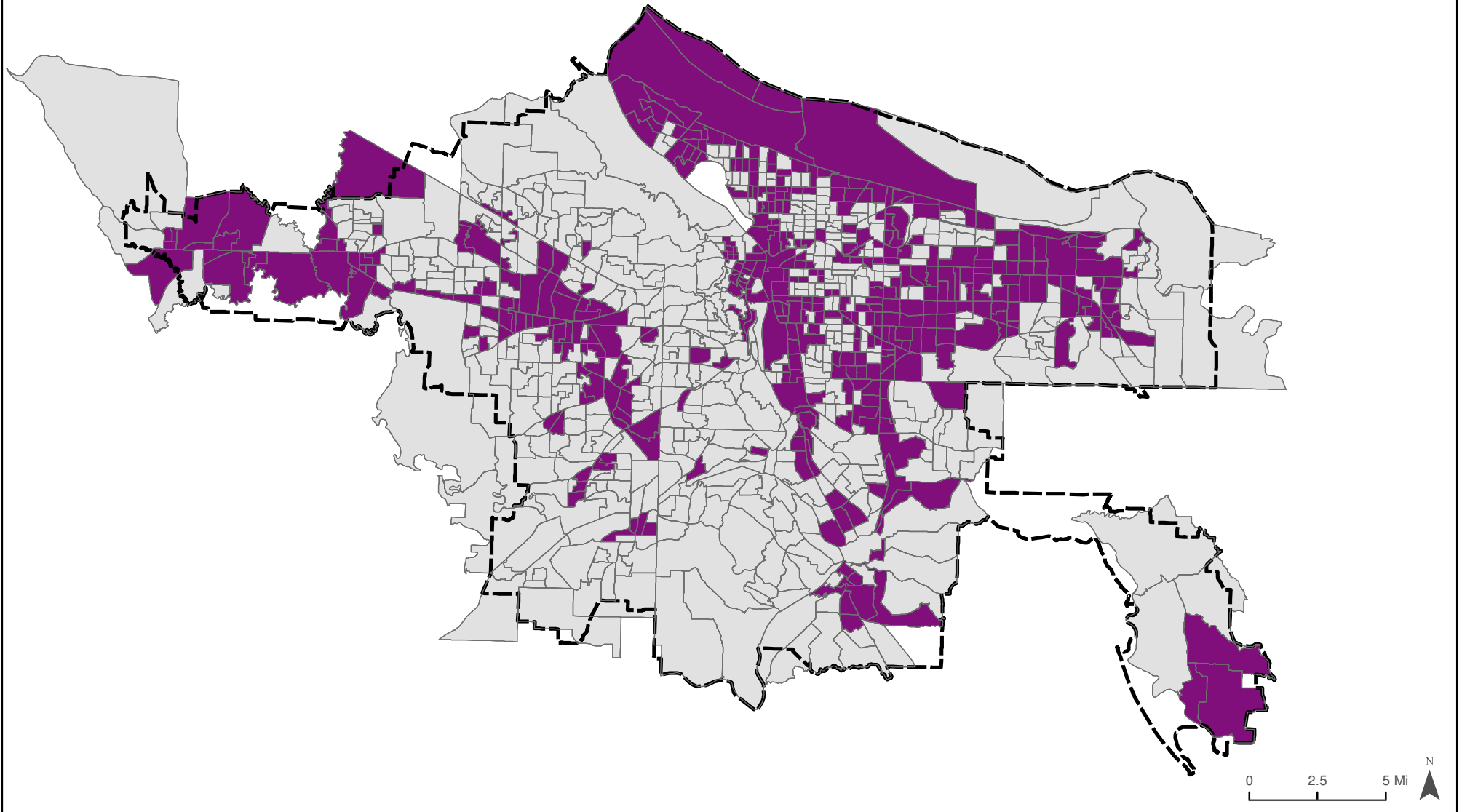


Figure 3: Current and Proposed Retail Outlets, Minority Population Overlay

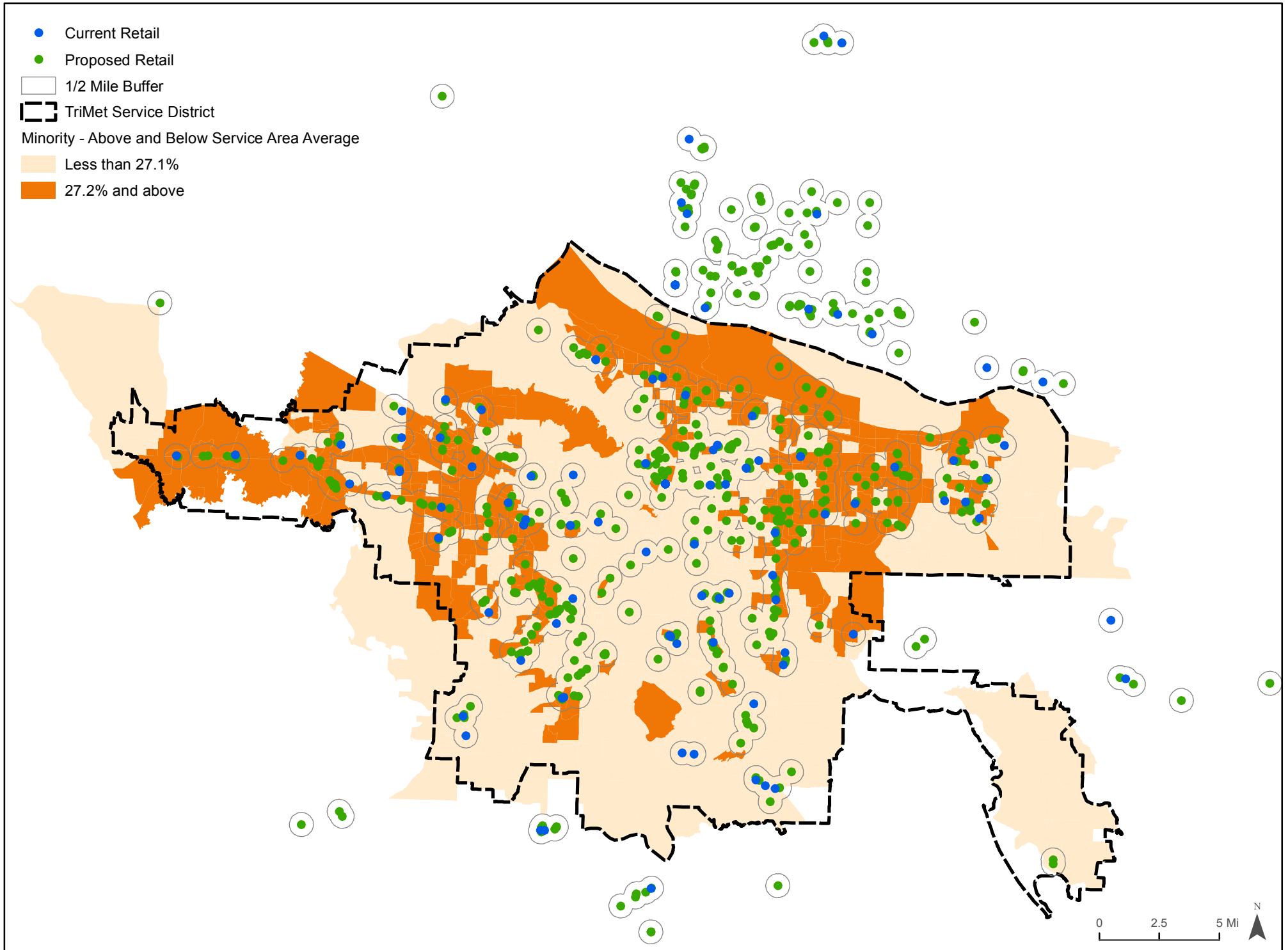


Figure 4: Current and Proposed Retail Outlets, Low-Income Population Overlay

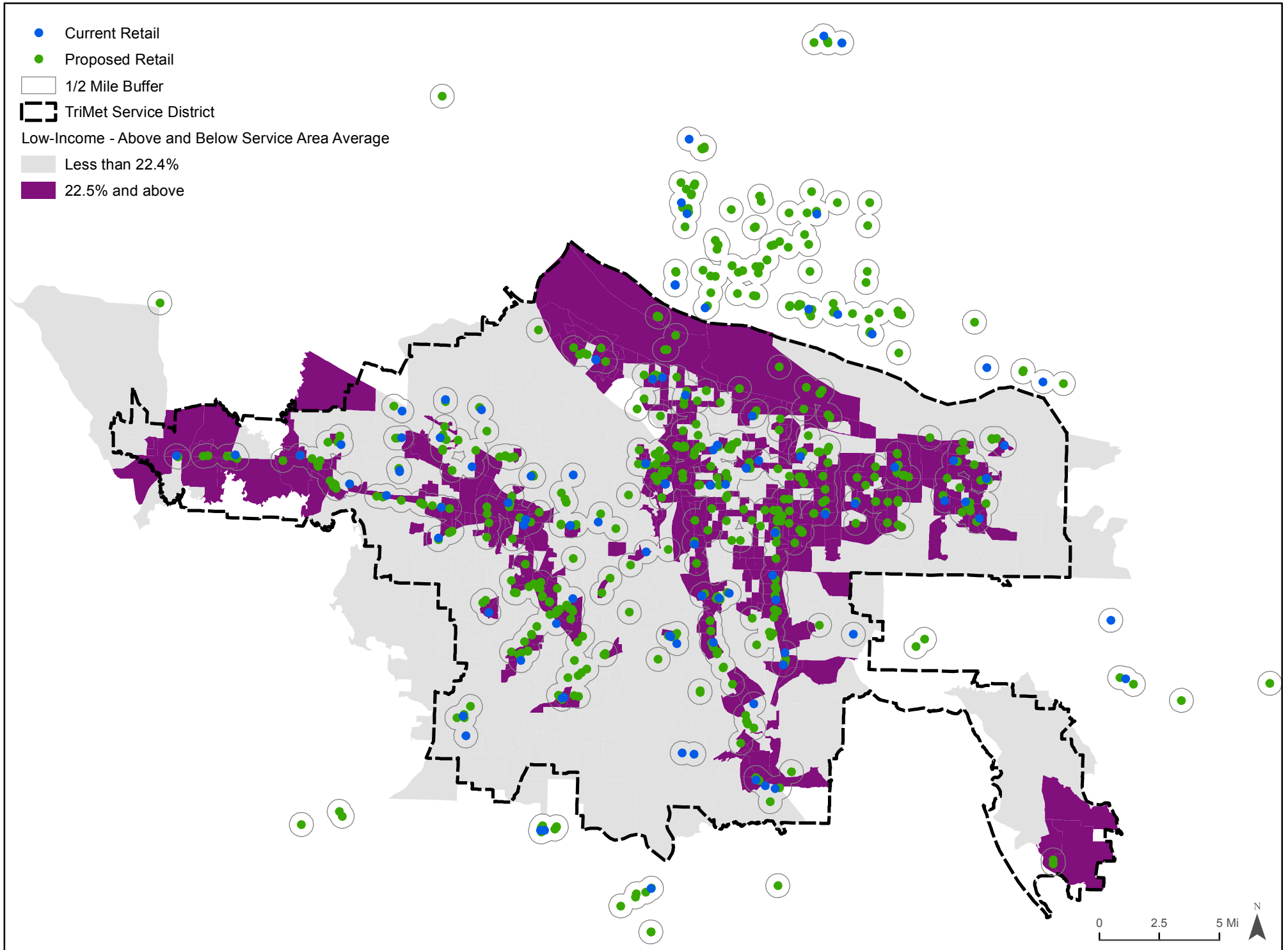


Table 3: Current and Proposed Access to the Retail Network

| | Service Area Population | Current Access | Percent Current Access | Proposed Access | Percent Proposed Access | Change |
|----------------------|-------------------------|----------------|------------------------|-----------------|-------------------------|--------|
| Overall ¹ | 1,489,764 | 284,406 | 19.1% | 753,356 | 50.6% | 31.5% |
| Minority | 403,648 | 86,604 | 21.5% | 225,937 | 56.0% | 34.5% |
| Non-Minority | 1,086,116 | 197,802 | 18.2% | 527,419 | 48.6% | 30.4% |
| Low-Income | 328,388 | 77,960 | 23.7% | 205,803 | 62.7% | 39.0% |
| Non-Low-Income | 1,139,864 | 201,949 | 17.7% | 537,018 | 47.1% | 29.4% |

¹Numbers based on the universe for the minority population calculations.

Public Input on Increase to 500+ Retail Outlets

- Going to retail stores was cited as most popular method of adding value to e-card
- Current retail network seemed to meet most participants' needs - convenient to buy fares where they already shop
- Some concern for availability of retail outlets in Washington County including Forest Grove, Cornelius & Tualatin
- Suggested retail locations included libraries, schools (including universities and community colleges), banks, juvenile detention centers, domestic violence shelters, social service agencies, convenient stores, coffee shops, places of worship & ethnically specialized stores
- Some interest in being able to add value at major transit centers & ticket vending machines, especially in areas with limited access to retail vendors

New Fare Caps Available in E-Fare

Explanation

Fare caps will limit the amount a rider spends on TriMet in a given day or month. The new daily and monthly fare caps that will be available on e-cards are equivalent in cost to the existing 1-Day and Monthly Passes. The daily fare cap will also be available to riders paying by Apple/Android Pay on their smartphone or by contactless smart credit/debit card.

Analysis

Fare caps will be available to riders who purchase an e-card, which was evaluated above. Additionally, TriMet examined the riders that may benefit from the fare caps to determine if disparate impacts or disproportionate burdens may occur. Riders that pay their fares by cash may benefit from the fare caps if they ride frequently enough. Assuming these riders switch to an e-card, they will receive the benefits of daily and monthly passes through the fare caps, without having to pay the upfront cost of a pass.

Overall, riders who pay by cash and ride frequently enough to benefit from the new fare caps account for 4.3% of the weekday trips, including 5.0% of the minority trips and 3.8% of the non-minority trips. The difference between minority and non-minority cash usage, where riders travel frequently enough to benefit from the fare caps, is not statistically significant, so ***no disparate impact is found***.

Riders who pay by cash and ride frequently enough to benefit from the new fare caps account for 6.6% of the weekday low-income trips and 2.6% of the non-low-income trips. A higher percentage of low-income trips would experience the benefits of the new fare caps, and the difference is statistically significant, so ***no disproportionate burden is found***. In fact, low-income trips where riders pay by cash are more likely to benefit from the new fare caps.

Overall, riders who pay by cash and ride frequently enough to benefit from the new fare caps account for 7.4% of the weekend trips, including 9.0% of the minority trips and 6.8% of the non-minority trips. A higher percentage of minority trips would experience the benefits of the new fare caps, and the difference is statistically significant, so ***no disparate impact is found***. Weekend minority trips where riders pay by cash are actually more likely to benefit from the new fare caps.

Riders who pay by cash and ride frequently enough to benefit from the new fare caps account for 10.0% of the weekend low-income trips and 4.5% of the non-low-income trips. A higher percentage of low-income trips would experience the benefits of the new fare caps, and the difference is statistically significant, so ***no disproportionate burden is found***. Weekend low-income trips where riders pay by cash are actually more likely to benefit from the new fare caps.

It is worth noting that the fare caps will generally impact a higher percentage of weekend trips than weekday trips, near double. In other words, cash paying weekend riders tend to take more trips on TriMet over the course of a month than those who may ride only on the weekdays.

Public Input on New Fare Caps Available in E-Fare

- Participants liked this benefit because it allows riders to load value in smaller increments toward a pass - especially beneficial to low-income riders who cannot afford the upfront cost
- Many participants had experienced spending more than the cost of a day pass in a single day due to taking unexpected trips. The daily fare cap would eliminate this issue for e-fare users.
- Participants liked the potential to save money if you ride frequently
- Need good education on how fare caps will work

Elimination of 7-Day Pass

Explanation

The 7-Day Pass was created in 2006 as an alternative for riders who could not afford the upfront cost of a monthly pass. This product has not been well-utilized since its inception, and would be eliminated for several reasons: first, because of new daily and monthly fare caps in place under e-fare; second, riders will be able to load value to e-cards in any increment \$5 or greater; and third, in order to simplify the fare structure. This e-fare policy was evaluated for the potential adverse effects on current pass users, as well as the potential benefits that current pass users will receive from the new fare caps.

Analysis of Potential Adverse Effects

TriMet evaluated this policy option for the potential adverse effects on riders that currently use the 7-Day Pass – namely, under the e-fare system these riders will need to pay per trip. If the riders transition to using e-cards, they will benefit from the new fare caps; however, the total cost for a 7-Day period (e.g., \$35 for Adult fares) will be higher than the current cost of a 7-Day Pass (e.g., \$26 for Adult fares). If the riders switch from the 7-Day Pass to cash single fares instead of e-fare, the total cost may be even higher depending on the number of trips they take.

Overall, riders use the 7-Day Pass for 1.3% of the weekday trips, including 1.8% of the minority trips and 1.1% of the non-minority trips. The difference between minority and non-minority usage of the 7-Day Pass is not statistically significant, so ***no disparate impact is found***.

Riders use the 7-Day Pass for 1.3% of both the weekday low-income and the non-low-income trips. Given no difference between low-income and non-low-income usage of the 7-Day Pass, ***no disproportionate burden is found***.

Overall, riders use the 7-Day Pass for 2.0% of the weekend trips, including 2.0% of both the minority and the non-minority trips. Given no difference between minority and non-minority usage of the 7-Day Pass, ***no disparate impact is found***.

Riders use the 7-Day Pass for 2.0% of the weekend low-income trips and 2.7% of the non-low-income trips. The difference between low-income and non-low-income usage of the 7-Day Pass is not statistically significant, so ***no disproportionate burden is found***.

Analysis of Potential Benefits from New Fare Caps

Assuming riders that use the 7-Day Pass switch to an e-card, they may benefit from the fare caps if they ride frequently enough. Overall, riders who use the 7-Day Pass and ride frequently enough to benefit from the new fare caps account for 0.5% of the weekday trips, including 0.9% of the minority trips and 0.4% of the non-minority trips. A higher percentage of minority trips where riders use the 7-Day Pass would experience the benefits of the new fare caps, and the difference is statistically significant, so ***no disparate impact is found***. Minority trips where riders use the 7-Day Pass are actually more likely to benefit from the new fare caps.

Riders who use the 7-Day Pass and ride frequently enough to benefit from the new fare caps account for 0.7% of the weekday low-income trips and 0.3% of the non-low-income trips. The difference between low-income and non-low-income usage of the 7-Day Pass, where riders travel frequently enough to benefit from the fare caps, is not statistically significant, so ***no disproportionate burden is found.***

Overall, riders who use the 7-Day Pass and ride frequently enough to benefit from the new fare caps account for 0.7% of the weekend trips, including 0.8% of the minority trips and 0.7% of the non-minority trips. The difference between minority and non-minority usage of the 7-Day Pass, where riders travel frequently enough to benefit from the fare caps, is not statistically significant, so ***no disparate impact is found.***

Riders who use the 7-Day Pass and ride frequently enough to benefit from the new fare caps account for 0.7% of the weekend low-income trips and 1.0% of the non-low-income trips. The difference between low-income and non-low-income usage of the 7-Day Pass, where riders travel frequently enough to benefit from the fare caps, is not statistically significant, so ***no disproportionate burden is found.***

Public Input on Elimination of 7-Day Pass

- No concerns were raised – new fare caps will benefit frequent riders that used the pass, enabling riders to purchase a monthly pass in even smaller increments.

Elimination of 14-Day Pass

Explanation

The 14-Day Pass was created in 2008 as an alternative for riders who could not afford the upfront cost of a monthly pass. This product has not been well-utilized since its inception, and would be eliminated for several reasons: first, because of new daily and monthly fare caps in place under e-fare; second, riders will be able to load value to e-cards in any increment \$5 or greater; and third, in order to simplify the fare structure. This e-fare policy was evaluated for the potential adverse effects on current pass users, as well as the potential benefits that current pass users will receive from the new fare caps.

Analysis of Potential Adverse Effects

TriMet evaluated this policy option for the potential adverse effects on riders that currently use the 14-Day Pass – namely, under the e-fare system these riders will need to pay per trip. If the riders transition to using e-cards, they will benefit from the new fare caps; however, the total cost for a 14-Day period (e.g., \$70 for Adult fares) will be higher than the current cost of a 14-Day Pass (e.g., \$51 for Adult fares). If the riders switch from the 14-Day Pass to cash single fares instead of e-fare, the total cost may be even higher depending on the number of trips they take.

Overall, riders use the 14-Day Pass for 1.3% of the weekday trips, including 1.5% of the minority trips and 1.1% of the non-minority trips. The difference between minority and non-minority usage of the 14-Day Pass is not statistically significant, so ***no disparate impact is found.***

Riders use the 14-Day Pass for 1.4% of the weekday low-income trips and 1.2% of the non-low-income trips. The difference between low-income and non-low-income usage of the 14-Day Pass is not statistically significant, so ***no disproportionate burden is found.***

Overall, riders use the 14-Day Pass for 1.8% of the weekend trips, including 2.3% of the minority trips and 1.7% of the non-minority trips. The difference between minority and non-minority usage of the 14-Day Pass is not statistically significant, so ***no disparate impact is found.***

Riders use the 14-Day Pass for 2.0% of the weekend low-income trips and 1.9% of the non-low-income trips. The difference between low-income and non-low-income usage of the 14-Day Pass is not statistically significant, so ***no disproportionate burden is found.***

Analysis of Potential Benefits from New Fare Caps

Assuming they switch to an e-card, riders that use the 14-Day Pass may benefit from the fare caps if they ride frequently enough. Overall, riders who use the 14-Day Pass and ride frequently enough to benefit from the new fare caps account for 0.7% of the weekday trips, including 0.7% of the minority trips and 0.6% of the non-minority trips. The difference between minority and non-minority usage of the 14-Day Pass, where riders travel frequently enough to benefit from the fare caps, is not statistically significant, so ***no disparate impact is found.***

Riders who use the 14-Day Pass and ride frequently enough to benefit from the new fare caps account for 0.8% of the weekday low-income trips and 0.7% of the non-low-income trips. The difference between low-income and non-low-income usage of the 14-Day Pass, where riders travel frequently enough to benefit from the fare caps, is not statistically significant, so ***no disproportionate burden is found.***

Overall, riders who use the 14-Day Pass and ride frequently enough to benefit from the new fare caps account for 1.0% of the weekend trips, including 1.2% of the minority trips and 0.9% of the non-minority trips. The difference between minority and non-minority usage of the 14-Day Pass, where riders travel frequently enough to benefit from the fare caps, is not statistically significant, so ***no disparate impact is found.***

Riders who use the 14-Day Pass and ride frequently enough to benefit from the new fare caps account for 1.2% of the weekend low-income trips and 0.9% of the non-low-income trips. The difference between low-income and non-low-income usage of the 14-Day Pass, where riders travel frequently enough to benefit from the fare caps, is not statistically significant, so ***no disproportionate burden is found.***

Public Input on Elimination of 14-Day Pass

- No concerns were raised – new fare caps will benefit frequent riders that used the pass, enabling riders to purchase a monthly pass in even smaller increments.

E-Fare Policy Options with Potential Disparate Impact/Disproportionate Burden Findings

The technical analysis identified three policy options that may have potential disparate impacts and disproportionate burdens:

- Automatic reload option for e-card using a credit/debit card (potential disparate benefit)
- New fare medium to pay fares using a contactless smart credit/debit card (potential disparate benefit)
- \$5 minimum load requirement for e-card

Additionally, through the public engagement process two issues in particular were frequently raised that were not identified in the technical analysis:

- \$3 e-card cost (impact on families in particular)
- Barriers to e-card registration, including concern about providing personal information and the requirement to provide an email address when registering the e-card

Automatic Reload Option for E-Card Using a Credit or Debit Card

Explanation

Under the e-fare system, riders will be able to link their credit or debit card to their e-card account online or through the e-fare mobile app to automatically reload value onto their e-card.

Analysis

TriMet evaluated this policy option for the potential benefits that riders will experience being able to automatically reload value onto their e-card. Riders must have a credit or debit card to take advantage of this benefit. Overall, riders have a pre-paid or regular debit or credit card for 77.1% of the weekday trips, including 68.1% of the minority trips and 81.7% of the non-minority trips. A lower percentage of minority trips would experience the benefits of being able to use their credit or debit card for automatic reload on their e-card. The difference is statistically significant, so ***a potential disparate impact is found.***

Riders have or use a pre-paid or regular debit or credit card for 72.6% of the weekday low-income trips and 90.5% of the non-low-income trips. A lower percentage of low-income trips would be able to benefit from automatic reload, and the difference is statistically significant, so ***a potential disproportionate burden is found.***

Overall, riders have or use a pre-paid or regular debit or credit card for 73.1% of the weekend trips, including 66.0% of the minority trips and 77.8% of the non-minority trips. A lower percentage of minority trips would experience the benefits of being able to automatically reload the e-card. The difference is statistically significant, so ***a potential disparate impact is found.***

Riders have or use a pre-paid or regular debit or credit card for 71.3% of the weekend low-income trips and 87.8% of the non-low-income trips. A lower percentage of low-income trips would experience the benefits of automatic reload on the e-card, and the difference is statistically significant, so ***a potential disproportionate burden is found.***

Those without access to the automatic reload feature will still be able to add value to e-cards using cash at participating retailers, or pay cash onboard.

Public Input on Automatic Reload Option for E-Card Using Credit/Debit Card

- Participants saw this option as a benefit, but unclear how much they would use it
- Ability to load value remotely is beneficial for direct service providers to assist clients
- Autoload option will help in managing multiple cards for a family

New Fare Medium to Pay Fares Using a Contactless Smart Credit or Debit Card

Explanation

The same technology that will enable riders to pay fares using e-cards will enable riders to utilize contactless smart credit or debit cards to pay fares. The fare amount will be charged directly to the rider's prepaid or credit/debit account.

Analysis

TriMet evaluated this policy option for the potential benefits that riders will experience using a contactless smart credit or debit card as a new fare medium. For this analysis, TriMet made the assumption that riders with regular credit/debit cards would be able to get a contactless smart credit/debit card. The same survey data on whether riders have a credit or debit card available, as described for the previous policy, was used to evaluate this policy option.

For weekday and weekend trips, lower percentages of both minority and low-income trips would be able to use their credit or debit card as a fare medium. The differences are statistically significant, so ***a potential disparate impact and disproportionate burden are found.***

Those without access to this fare payment option will still be able to add value to e-cards using cash at participating retailers, or pay cash onboard.

Public Input on New Fare Medium of Contactless Smart Credit/Debit Card

- Less popular fare medium – most participants indicated preference to use e-card

Costs Related to E-Cards

Explanation

At this time the TriMet Board is not voting on whether to eliminate paper tickets and passes. However, it is TriMet’s intention to phase out these products over a yet-to-be determined time period, depending on the successful adoption of the e-fare program. The intention is that eventually, retail outlets will carry only e-cards. Once this happens, riders who use paper tickets or passes will need to buy an e-card in order to get the same benefits of the paper fare products (i.e. the discount of a monthly pass or the option to pay for fares in bulk) and the new daily and monthly fare caps.

In order to cover the costs of producing e-cards and incentivize riders to retain them, riders will need to pay the \$3 one-time fee at retailers for new or replacement e-cards. When riders load value onto the e-cards they will need to load a minimum \$5, per current agreements with retail distributors.

TEAC Recommendation

To ensure transparency and accountability over when paper tickets and passes will be phased out, TriMet should prioritize the development of evaluation measures, and involve TEAC in the process of designing these measures.

Analysis

Overall, riders use paper tickets (from ticket books) or passes for 52.8% of the weekday trips, including 49.1% of the minority trips and 55.0% of the non-minority trips. A lower percentage of minority trips would be adversely affected by the \$3 e-card fee and \$5 minimum load requirement, and the difference is statistically significant, so ***no disparate impact is found***.

Riders use paper tickets or passes for 53.8% of the weekday low-income trips and 55.6% of the non-low-income trips. The difference between low-income and non-low-income usage of paper tickets and passes is not statistically significant, so ***no disproportionate burden is found***.

Overall, riders use paper tickets or passes for 50.1% of the weekend trips, including 45.6% of the minority trips and 52.4% of the non-minority trips. A lower percentage of minority trips would be adversely affected by the \$3 e-card fee and \$5 minimum load requirement, and the difference is statistically significant, so ***no disparate impact is found***.

Riders use paper tickets or passes for 48.9% of the weekend low-income trips and 54.0% of the non-low-income trips. A lower percentage of low-income trips would be adversely affected by the costs related to e-cards. The difference is statistically significant, so ***no disproportionate burden is found***.

\$5 Minimum Load Requirement

Riders whose fares are less than \$5 may also be adversely affected by the \$5 minimum load policy because it may limit their ability to access the e-fare system. Riders paying the Adult fare currently pay \$5 a day to take a round trip (where the return trip is outside the 2.5-hour transfer window), and will be able to continue to put this amount onto an e-card. However, some riders currently pay less than \$5 a day and could be negatively affected by the proposed minimum load requirement because they would need to pay more than their current one-way fare when adding value to the e-card. Riders that currently pay less than \$5 a day include riders that pay a single one-way cash fare per day (Adult, Youth, or Honored Citizen) and riders that use a Youth or Honored Citizen 1-Day Pass.

Overall, riders with fares less than \$5 account for 24.5% of the weekday trips, including 27.4% of the minority trips and 22.6% of the non-minority trips. A higher percentage of minority trips would be adversely affected by the \$5 minimum load requirement for e-cards. The difference is statistically significant, so ***a potential disparate impact is found.***

Riders with fares less than \$5 account for 30.6% of the weekday low-income trips and 18.3% of the non-low-income trips. A higher percentage of low-income trips would be adversely affected by the \$5 minimum load requirement, and the difference is statistically significant, so ***a potential disproportionate burden is found.***

Overall, riders with fares less than \$5 account for 37.2% of the weekend trips, including 38.4% of the minority trips and 36.2% of the non-minority trips. The difference between minority and non-minority fares less than \$5 is not statistically significant, so ***no disparate impact is found.***

Riders with fares less than \$5 account for 40.0% of the weekend low-income trips and 32.7% of the non-low-income trips. A higher percentage of low-income trips would be adversely affected by the \$5 minimum load requirement, and the difference is statistically significant, so ***a potential disproportionate burden is found.***

It is worth noting that the \$5 minimum load requirement will generally impact riders with fares less than \$5 more for weekend trips than for weekday trips, by about 10 percentage points.

Public Input on Costs Related to E-Cards

- Participants generally thought the \$3 cost was reasonable
- Some were concerned about the \$3 cost & \$5 minimum requirement as hardships for low-income individuals
- Participants were concerned about costs for families that need to buy a card (\$8 each including minimum load) for each family member
- Suggested a family card option
- Providing free e-cards during the initial period will help with the \$3 cost, but some concerns about when the period ends & options if riders lose their free e-card
- Suggestions to extend the initial period of free e-cards and ability to use value in e-fare account to buy a new e-card

Card Registration

Explanation

Registration of the e-card online or by phone will be an option for all TriMet riders, including those eligible for reduced fares. Registration would provide lost value protection and facilitate the automatic reload feature. TriMet provides translation services for callers who speak a language besides English, and this service will be available for e-card registration during customer service hours.

Analysis

At the time the fare equity analysis was completed, TriMet was unable to evaluate online registration of the e-card because data on riders' access to the internet was not available. TriMet will consider collecting this data through a future rider survey. Participants in the public engagement process did provide input on card registration, described below.

Public Input on Card Registration

- Participants saw lost value protection as a benefit, but were concerned about requirement to register card
- Concerns with technology barriers - particularly for elders - including lack of access to internet or an email address & computer literacy
- Concerns with language barriers
- Fear that law enforcement or immigration will have access to customer information & ridership patterns
- Concerns about system security & protecting personal information, including who will have access to the information and what limitations law enforcement will have in obtaining records
- Suggested mitigations: registration by paper, multilingual translation, accept mobile phone numbers in lieu of email addresses

Additional Public Input

Beyond the e-fare policy options analyzed in the technical analysis, the public engagement process led to additional input regarding e-fare and TriMet fares in general. This additional public input is summarized in Table 4.

Table 4: Other Public Input on E-Fare and General Fares

| Policy/Feature | Public Feedback |
|--|---|
| Cash Fares | <ul style="list-style-type: none"> • It is important to continue accepting cash fares, particularly for low-income individuals and elders from immigrant and refugee populations. • Some participants indicated they will continue to pay by cash, rather than use another e-fare form of payment. Several members of TEAC did not see enough of an incentive to switch from cash to e-fare. |
| Methods for Adding Value to e-fare Account | <ul style="list-style-type: none"> • Meeting participants who indicated they would use the e-card are likely to load value at a store, online, or through the phone app, with retail stores being the most popular method. • Some participants expressed interest in being able to go negative on the e-card to address concerns about being stranded if the balance is too low. |
| Methods for Paying Fare Using e-fare | <ul style="list-style-type: none"> • Majority of participants indicated they would use the e-card, with the phone app and contactless credit card being less popular. • Concerns about card readers – suggestion to add onto train in case there are problems with card readers on platforms, and to address accessibility of card readers. • Concerns that using smartphone option will cause delays, as current phone app payment system does (wait while riders pull up app). • Suggested option of keychain size card. • Suggested ability to share a card with someone riding on card-owner’s behalf (e.g., family member running an errand). |
| Stored Value | <ul style="list-style-type: none"> • Participants liked that the stored value in the e-fare account would roll over month to month – then they won’t lose money if they ride less frequently one month. |
| Convenience | <ul style="list-style-type: none"> • Participants liked that they won’t need to carry exact change. • Participants liked that they can keep any change due to them (e.g., if they only have a \$5 bill to pay a one-way fare, the e-card will store the \$2.50 due in change). • Options to load value are convenient (stores, online, app). • E-card is durable (e.g., if washed in laundry). |
| Loss Protection | <ul style="list-style-type: none"> • Loss protection was seen as a significant benefit; however, participants voiced concerns regarding the registration necessary in order to receive this benefit. • Need good education on how loss protection works and how to access this benefit, particularly for people who do not understand English. |
| Options if Lose or Forget E-Card | <ul style="list-style-type: none"> • Participants would like the ability to mix use of card and phone app on a single account (pay by e-card or phone app). • Participants suggested a family card to address concern that children easily lose cards (and cumbersomeness of carrying multiple cards). |

| Policy/Feature | Public Feedback |
|--------------------------------------|---|
| Identification | <ul style="list-style-type: none"> • Suggested combining identification cards with the Honored Citizen and Youth Hop cards for convenience (e.g., combining Hop card with Honored Citizen ID will assist riders with developmental disabilities or limited English proficiency). • Suggested providing an alternative identification source for teens who want to use the Youth fare, but do not have a high school ID. |
| Education and Outreach on E-Fare | <ul style="list-style-type: none"> • Translation of materials into multiple languages is key – work with refugee resettlement agencies and health clinics to understand community language needs. • Suggested using visuals to help community members understand changes regardless of language and ability. • Suggested posting materials in transit vehicles and at transit stops. • Suggested working with CBOs, schools, places of worship, and ethnically specialized stores to distribute e-fare information. • Suggested working with diverse communities during the 2016 trial period to analyze different problems that may arise for different communities. • Suggested promoting information on television and online. |
| Initial Distribution of Free E-Cards | <ul style="list-style-type: none"> • Suggested working with CBOs, schools, and places of worship to distribute cards to those most in need. • Suggested distributing at retail outlets. • Suggested distributing at TriMet transit centers, stations, and on vehicles. |
| E-Fare System Reliability | <ul style="list-style-type: none"> • Suggested providing a mechanism through which riders can contest system mistakes. |
| Fare Costs | <ul style="list-style-type: none"> • Transit fares in general are a hardship for low-income riders and those with larger families. • Several participants suggested a low-income fare – the e-fare account may help establish low-income status. |
| Fare Enforcement | <ul style="list-style-type: none"> • Some participants described experiences of discrimination by TriMet drivers and fare enforcement officers related to race and age (e.g., teenage parents scrutinized for Youth fares). • Participants perceived racial profiling in fare enforcement, results in escalated situations and unnecessary ticketing. |
| Decision-making Process | <ul style="list-style-type: none"> • CBOs would like to build a stronger partnership with TriMet to identify implementable solutions to address concerns for their constituents. |

Mitigations

Some of the mitigations described below directly address the e-fare policy options identified with potential Title VI impacts, while other mitigations address the e-fare related concerns identified in the public engagement process. TriMet will take into account the other input collected on general fares and fare enforcement in future decisions regarding the fare system.

Early Mitigations

As described previously, TriMet staff heard public input on the initial e-fare policies during the planning process, and already made some policy changes that were considered early mitigations:

- Originally considered \$3.50 fee for new or replacement e-cards, and reduced the proposed fee to \$3.
- Originally considered a pricing differential for fares purchased via e-fare to encourage adoption, but opted to keep cash fares and e-fare equitable.
- Originally considered eliminating paper transfers for riders who pay by cash/ticket, and decided to retain paper transfers.
- Originally considered eliminating the sale of paper 1-Day passes onboard buses, and decided to retain ticket printers on the bus so the paper 1-Day pass will still be available.
- Originally e-card registration was only available online, but created option to register e-card anonymously by telephone without requiring an email address. TriMet customer service language interpretation services will be available for card registration.

Recommended Mitigations

After reviewing additional input collected through the Title VI public engagement process, TriMet staff recommends implementing several mitigation measures, described below.

➤ ***Distribute free e-cards, targeting minority and low-income riders***

The goal of this mitigation is to address the following:

- \$3 e-card cost (impact on families in particular)
- New fare medium using contactless smart credit/debit card (disparate benefit)

Based on public input, the e-card will be the preferred fare medium. TriMet will distribute at least 100,000 free e-cards during an initial period, with a strategic effort to reach minority and low-income individuals through CBOs. Additionally the agency will provide free e-cards in the longer term through its Access Transit fare programs. This mitigation will provide many riders, including transit-dependent individuals, with direct access to the new e-fare system.

➤ **Continue expanding the retail network, specifically in minority and low-income neighborhoods**

The goal of this mitigation is to address the following:

- Automatic reload option for e-card (disparate benefit)
- New fare medium using contactless smart credit/debit card (disparate benefit)

Adding value to the e-card at retail stores was the most popular choice by outreach participants, followed by adding value online and through the e-fare mobile app. Suggested additional locations from the public engagement sessions included libraries, schools, juvenile detention centers, domestic violence shelters, social service agencies, convenient stores, coffee shops, major bus stops, and train stations in areas with less retail options. By making the expanded retail network as convenient as possible for minority and low-income riders to load value onto e-cards, this mitigation is meant to help address the issue of access for unbanked riders.

TEAC Recommendation

Create a culturally informed, multilingual public awareness campaign partnering with retail outlet locations to assist communities in understanding that TriMet fares can be purchased there (e.g., language-specific signage saying “Reload TriMet fares here”). Also provide additional information on key FAQ’s related to e-fare.

➤ **Implement a lower minimum load at certain locations**

The goal of this mitigation is to address the finding of a potential disparate impact/ disproportionate burden associated with the \$5 minimum load.

Attendees at the CBO meetings said they could afford the \$5, but a few attendees expressed concern that the requirement could be a hardship for other low-income individuals and families. Participants noted that for some individuals it is difficult to have enough money to get through the day, and holding on to the extra \$2.50 (if they are only taking a one-way trip) can make a big difference.

The \$5 minimum load is currently a stipulation that many of the stores in its retail vendor contract require to participate. While TriMet has less flexibility in the minimum load requirement for the contracted retailers, it has the option of working with other community partners that could have a lower minimum load requirement. TriMet could also implement a lower minimum load requirement at its Pioneer Square Ticket office.

It should also be reiterated that riders may continue to purchase a single ticket or day pass, for \$5 or less, just as they do today.

➤ **Explore opportunities to address affordability for families**

The goal of this mitigation is to find ways to address a common concern raised during outreach that low-income families may have difficulty accessing e-fare due to the \$3 e-card cost and \$5 minimum load.

Participants often suggested a family card option as a way to address this, but this option is not compatible with offering fare capping. It would require a new family fare, which TriMet does not currently have. However there may be other ways in addition to provision of free e-cards that TriMet may be able to improve access to e-fare for low-income families.

➤ **Enlist CBOs as pilot participants in 2016**

The goal of this mitigation is to increase awareness and access to e-fare for minority and low-income individuals, and to support organizations programmatically in terms of fare distribution. TriMet will also need to provide training and technical assistance as part of this effort.

E-Fare Benefits

TriMet also considers some of the basic features of e-fare as benefits for all riders, including minority and low-income individuals. These features complement the mitigations described above:

- **Fare caps** – essentially allow riders to purchase a monthly pass one ride at a time, reducing the up-front expense (currently \$100 for an Adult Monthly Pass, \$28 for a Youth or Honored Citizen Monthly Pass).
- **Lost card protection** – available to riders who register their e-card online. Helps riders reduce the risk associated with buying a paper pass, which cannot be replaced if lost.
- **Faster boarding** – e-fare should speed up the boarding process on the bus, if riders do not have to find exact change or wait for others to do so, resulting in a more reliable bus system.

Appendix A

Fare Equity Analysis Methodology

Fare Equity Analysis Methodology

In 2015 TriMet used the following data and methodologies to conduct the fare equity analysis of policy changes related to its migration to the e-fare system.

TriMet Data

TriMet used 2012 data from a rider survey on fares for the fare equity analysis. The survey was conducted from October to December 2012 and included 16,982 responses. The data represented one-way trips, not individual riders, and was weighted to adjust for transfers and ridership by route type. Given different ridership patterns, weekday trips were evaluated separately from weekend trips.

The 2012 survey collected the following information pertinent to the fare equity analysis:

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

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

A copy of the 2012 survey instrument is included at the end of this appendix. Note that the survey data on rider demographics (percentage minority, low-income, and limited English proficient) differed from the service area demographics that TriMet has identified using U.S. Census and American Community Survey data. The fare equity analysis used the survey data on minority and low-income trips.

Methodologies

It is important for fare equity analyses to examine both scenarios where minority and low-income riders may bear a greater share of negative impacts, or experience a lesser share of positive impacts than non-minority and non-low-income riders. TriMet evaluated draft e-fare policies for both. The methodologies TriMet used to evaluate the draft e-fare policy options are described below. While most of the policy options could be analyzed using the rider survey data, the increase in retail outlets was analyzed using demographic data and geographic information system (GIS) maps.

TriMet's Disparate Impact and Disproportionate Burden Policies

TriMet applied the following policies to determine if the draft e-fare policies may result in possible disparate impacts on minority populations or disproportionate burdens on low-income populations. TriMet compared the percentage of impacted trips by minority and low-income riders with those of non-minority and non-low-income riders.

Disparate Impact Policy – Minority Populations

Transit providers are required to develop a policy for measuring disparate impacts. The policy establishes a threshold for determining when the adverse effects of fare changes are borne disproportionately by minority populations. The disparate impact threshold must be applied uniformly, regardless of mode, and cannot be altered until the next Title VI Program submission. The following is TriMet's disparate impact policy regarding fare changes, established in its 2013 Title VI Program:

For fare changes, a potential disparate impact is noted when the percentage of trips by minority riders using a fare option, in combination with the percentage price change for that option, has an impact that exceeds the comparable impact on non-minority riders.

Differences in the use of fare options between minority populations and other populations include all such differences that are documented as statistically significant at the 95 percent confidence level.

Disproportionate Burden Policy – Low-income Populations

While low-income populations are not a protected class under Title VI, the Federal Transit Administration requires transit providers to evaluate proposed fare changes to determine the relative impact on low-income populations. Transit providers are required to develop a policy for measuring disproportionate burdens on low-income populations, which establishes a threshold for determining when the adverse effects of fare changes are borne disproportionately by low-income populations. The following is TriMet's disproportionate burden policy regarding fare changes, established in its 2013 Title VI Program:

As defined by TriMet, a person whose household income is at or below 150 percent of the poverty level set by the U.S. Department of Health and Human Services is considered low-income.

For fare changes, a potential disproportionate burden is noted when the percentage of trips by low-income riders using a fare option, in combination with the percentage price change for that option, has an impact that exceeds the comparable impact on non-low-income riders.

Differences in the use of fare options between low-income populations and non-low-income populations include all such differences that are documented as statistically significant at the 95 percent confidence level.

TriMet's disparate impact and disproportionate burden policies define differences in the use of fare options between minority/low-income and non-minority/non-low-income populations as those that are statistically significant at the 95 percent confidence level. Therefore, where the results showed differences that were not statistically significant, TriMet found no disparate impact or disproportionate burden.

Methodologies Using Rider Survey Data

Policies that Do Not Directly Impact Trip Costs

Most of the potential policies will not directly impact trip costs for riders. TriMet evaluated the following policies by examining survey data on the trips that will be impacted by the specific policy:

- Elimination of mail-order purchasing of fare media
- Automatic reload option for e-card using a credit/debit card
- New fare medium to pay fares using contactless smart credit/debit card
- Costs related to e-cards (\$3 card cost and \$5 minimum load requirement)
- Elimination of 7-Day Pass (adverse effects)
- Elimination of 14-Day Pass (adverse effects)

The minority trips affected by each policy were compared with the impacted non-minority trips, and the low-income trips affected by the policy were compared with the impacted non-low-income trips. TriMet used the following step by step procedures:

1. Construct a table that lists each potential fare policy. Identify the numbers and percentages of overall, minority, non-minority, low-income, and non-low-income trips impacted by the specific policy.
2. For each potential policy compare the percentages of impacted minority and non-minority trips and the percentages of impacted low-income and non-low-income trips.

-
- a. TriMet identifies a potential disparate impact if the percentage of impacted minority trips exceeds that of impacted non-minority trips, and the difference is statistically significant at the 95 percent confidence level.
 - b. TriMet identifies a potential disproportionate burden if the percentage of impacted low-income trips exceeds that of impacted non-low-income trips, and the difference is statistically significant at the 95 percent confidence level.

Policies Where Trips May Benefit from Fare Caps

A few potential policies will not directly impact trip costs for riders, but required additional evaluation in terms of the benefits that riders may receive from the daily and monthly fare caps that will be available for e-fares only. TriMet evaluated the following policies by examining survey data on the number of trips per month that riders currently make:

- New fare caps available with e-fare
- Elimination of 7-Day Pass (benefits of fare caps)
- Elimination of 14-Day Pass (benefits of fare caps)

If the number of trips per month was greater than a certain threshold, then the rider may benefit by paying less per trip than they do using their current fare product. Note that trips can only receive the benefit of fare caps if paying by e-card, Apple or Android Pay on their smartphone (daily cap only), or a contactless smart credit/debit card (daily cap only) once the e-fare system is in place. TriMet used the following step by step procedures to evaluate policy options where trips may benefit from the fare caps:

1. Construct a table of survey data for users of the specific fare product (cash users to evaluate the daily/monthly fare cap benefit and pass users to evaluate eliminating the 7-day and 14-day passes), including fare product (cash, passes), fare type (Adult, Youth, etc.), number of trips taken per month, ethnicity, and income.
2. To evaluate riders that may benefit from the fare caps, select a sub-set of the survey data where the number of trips per month exceeds the following thresholds depending on fare type:
 - Adult, 40 trips/month
 - Honored Citizen, 26 trips/month
 - Youth, 22.4 trips/month

*These thresholds were calculated by dividing the current 30-Day Pass price by the current single ride 2 1/2-Hour Ticket price. Riders typically take at least this number of trips to justify the upfront cost of the pass, where each trip equals the cost of the 2 1/2-Hour Ticket. Riders that ride more frequently than these thresholds benefit more

from the pass as the cost per trip decreases with each additional trip taken. The monthly and daily fare caps will provide this benefit to e-fare users without the upfront cost of the pass required.

3. Compare the percentages of minority and non-minority trips and the percentages of low-income and non-low-income trips.
 - a. TriMet identifies a potential disparate impact if the percentage of non-minority trips benefiting from the fare caps exceeds that of minority trips, and the difference is statistically significant at the 95 percent confidence level.
 - b. TriMet identifies a potential disproportionate burden if the percentage of non-low-income trips benefiting from the fare caps exceeds that of low-income trips, and the difference is statistically significant at the 95 percent confidence level.

At the time the fare equity analysis was conducted, TriMet was unable to evaluate the policy option of online registration of the e-card, which provides lost value protection and facilitates automatic reloads, because data on trips' use of the internet was not available.

Methodology Using Demographic Data and GIS

TriMet used demographic data and GIS maps to evaluate the increase to more than 500 retail outlets where riders may purchase fares. This policy will have beneficial impacts, so TriMet analyzed data to determine if minority and low-income populations will receive at least their fair share of benefits. TriMet conducted the equity analyses by mapping the locations of the retail outlets, overlaid on the minority and low-income populations within the service district. TriMet compared the percentages of minority/low-income populations with access to the retail outlets to the percentages of non-minority/non-low-income populations with access. TriMet followed these step by step procedures:

1. Create a map each of minority and low-income populations within the service district, using data at the Census block group level from the American Community Survey.
2. Map the locations of the retail outlets, and overlay on the minority and low-income maps.
 - a. Both the current and proposed network of retail outlets will be mapped to evaluate the change in access for minority and low-income populations.
3. Create one-half mile buffers around these locations, and select the Census block groups where the centroid of the block group falls within the buffers. The populations in these block groups are deemed to have access to the retail locations.

-
- a. Merge the buffers for the current and additional retail outlets into a combined access buffer to evaluate access to the full proposed network.
 4. In the selected Census block groups, identify the total overall, minority, non-minority, low-income, and non-low-income populations.
 5. Calculate the percentage of minorities with access to the current and proposed networks by dividing the minority population with access by the total minority population in the service district. Do the same for the non-minority, low-income, and non-low-income populations.
 - a. TriMet identifies a potential disparate impact if the percentage of minorities with access is lower than the percentage of non-minorities with access.
 - b. TriMet identifies a potential disproportionate burden if the percentage of the low-income population with access is lower than the percentage of the non-low-income population with access.
 6. Compare the change (percentage points) in the percentage of minorities with access with the change in the percentage of non-minorities with access. Do the same for the low-income and non-low income populations.

Alternatives and Mitigation

If potential disparate impacts on minority riders are found, TriMet will analyze alternatives to determine if any exist that would serve legitimate program goals, but with less of a disparate effect based on race, color, or national origin. If potential disproportionate burdens on low-income riders are found, TriMet will take steps to avoid, minimize, or mitigate impacts where practicable, including describing available alternatives.

TriMet Rider Survey

Please fill out this form even if you have already received one on another bus or train.

Dear Rider: TriMet would like to know about the trip you are currently making. Please answer the following questions and return to the surveyor or drop it in the mail.

| | | | | | | | |
|--|------------------------------------|---|------------------------------------|--|-------------------------------------|---|--|
| 1. What line are you riding on now? Line # _____ Line name _____ | | | | | | | |
| 2. Do you have to transfer to or from a different line to make this trip in one direction? 01 <input type="checkbox"/> No <input type="checkbox"/> Yes. If Yes, how many times? 02 <input type="checkbox"/> 1 time 03 <input type="checkbox"/> 2 times 04 <input type="checkbox"/> 3 or more times | | | | | | | |
| 3. If you must transfer to make this trip, what lines do you transfer to or from? (not including the bus or train you are on now) Line # _____ Line name _____ Line # _____ Line name _____ <input type="checkbox"/> MAX <input type="checkbox"/> WES <input type="checkbox"/> Portland Streetcar <input type="checkbox"/> C-TRAN route # _____ <input type="checkbox"/> SAM Transit _____ | | | | | | | |
| 4. How did you pay your fare for this trip? (check one) 01 <input type="checkbox"/> TriMet fare 02 <input type="checkbox"/> C-TRAN fare 03 <input type="checkbox"/> Portland Streetcar fare If Streetcar, which type of fare? 01 <input type="checkbox"/> 2-Hour Ticket (\$1) 02 <input type="checkbox"/> Portland Streetcar Annual Pass (\$150) | | | | | | | |
| 5. Which TriMet fare? (Please check one) | | | | | | | |
| | 01 CASH (2-Hr Ticket) | 02 TICKET (Book of 10) | 03 1-DAY PASS | 04 7-DAY PASS | 05 14-DAY PASS | 06 MONTHLY/ 30-Day PASS | 07 ANNUAL PASS |
| Adult | 01 <input type="checkbox"/> \$2.50 | 01 <input type="checkbox"/> \$25.00 | 01 <input type="checkbox"/> \$5.00 | 01 <input type="checkbox"/> \$26.00 | 01 <input type="checkbox"/> \$51.00 | 01 <input type="checkbox"/> \$100.00 | 01 <input type="checkbox"/> \$1,100.00 |
| Youth/Student | 02 <input type="checkbox"/> \$1.65 | 02 <input type="checkbox"/> \$16.50 | 02 <input type="checkbox"/> \$3.30 | 02 <input type="checkbox"/> \$ 8.00 | 02 <input type="checkbox"/> \$15.50 | 02 <input type="checkbox"/> \$ 30.00 | 02 <input type="checkbox"/> \$ 330.00 |
| Honored Citizen/STAR | 03 <input type="checkbox"/> \$1.00 | 03 <input type="checkbox"/> \$10.00 | 03 <input type="checkbox"/> \$2.00 | 03 <input type="checkbox"/> \$ 7.00 | 03 <input type="checkbox"/> \$13.50 | 03 <input type="checkbox"/> \$ 26.00 | 03 <input type="checkbox"/> \$ 286.00 |
| LIFT | 04 <input type="checkbox"/> \$2.15 | 04 <input type="checkbox"/> \$21.50 | | | 04 <input type="checkbox"/> \$31.50 | 04 <input type="checkbox"/> \$ 62.00 | 04 <input type="checkbox"/> \$ 682.00 |
| 05 <input type="checkbox"/> Employee ID with TriMet sticker | | | | | | | |
| 06 <input type="checkbox"/> College ID with TriMet sticker | | | | | | | |
| 07 <input type="checkbox"/> High school ID with TriMet sticker and/or embedded with TriMet logo | | | | | | | |
| 08 <input type="checkbox"/> Honored Citizen Downtown Pass | | | | | | | |
| 09 <input type="checkbox"/> Other _____ | | | | | | | |
| 6. Is your single-fare payment being used for a one-way or a round-trip? 01 <input type="checkbox"/> One-way trip 02 <input type="checkbox"/> Round-trip | | | | | | | |
| 7. If you are using a 1-Day Pass, how many one-way trips will you make on it today? _____ | | | | | | | |
| 8. Where did you buy your fare for this trip? | | | | | | | |
| 01 <input type="checkbox"/> Onboard the bus | | 05 <input type="checkbox"/> Pass by Mail | | 09 <input type="checkbox"/> Social Service Agency Purchased for me | | | |
| 02 <input type="checkbox"/> Ticket Vending Machine | | 06 <input type="checkbox"/> School or Place of Employment | | 10 <input type="checkbox"/> Other _____ | | | |
| 03 <input type="checkbox"/> TriMet Ticket Office | | 07 <input type="checkbox"/> Online | | | | | |
| 04 <input type="checkbox"/> Retail Store | | 08 <input type="checkbox"/> Purchased on Streetcar | | | | | |
| 9. Do you have a vehicle you could have used to make this trip either as the driver or as a passenger? 01 <input type="checkbox"/> Yes 02 <input type="checkbox"/> No | | | | | | | |
| 10. Do you have a checking or savings account? 01 <input type="checkbox"/> Yes 02 <input type="checkbox"/> No | | | | | | | |
| 11. Do you have or use a pre-paid or regular debit or credit card? | | | | | | | |
| 01 <input type="checkbox"/> Yes (check all that apply) | | 01 <input type="checkbox"/> Pre-paid card | | 02 <input type="checkbox"/> Bank-issued debit card | | 03 <input type="checkbox"/> Bank-issued credit card | |
| 02 <input type="checkbox"/> No | | | | | | | |
| 12. Including yourself, how many people live in your household? _____ | | | | | | | |
| 13. How many trips have you taken on a TriMet bus/MAX in the last month? (count each direction as one trip) _____ | | | | | | | |
| 14. What is your age? _____ | | | | | | | |
| 15. Are you a college student? 01 <input type="checkbox"/> Yes, full-time 02 <input type="checkbox"/> Yes, part-time 03 <input type="checkbox"/> No | | | | | | | |
| If you are a college student, which college? | | 01 <input type="checkbox"/> PSU | | 02 <input type="checkbox"/> PCC | | 03 <input type="checkbox"/> Other _____ | |
| 16. Are you: (check one) 01 <input type="checkbox"/> Asian/Pacific Islander 03 <input type="checkbox"/> Caucasian/White 05 <input type="checkbox"/> Multi-racial/bi-racial 07 <input type="checkbox"/> Other _____ | | | | | | | |
| | | 02 <input type="checkbox"/> African American/Black | | 04 <input type="checkbox"/> Hispanic/Latino | | 06 <input type="checkbox"/> Native American Indian | |
| 17. What was your total annual household income before taxes in 2011? (check one) | | | | | | | |
| 01 <input type="checkbox"/> Under \$10,000 | | 03 <input type="checkbox"/> \$20,000 to \$29,999 | | 05 <input type="checkbox"/> \$40,000 to \$49,999 | | 07 <input type="checkbox"/> \$60,000 to \$69,999 | |
| 02 <input type="checkbox"/> \$10,000 to \$19,999 | | 04 <input type="checkbox"/> \$30,000 to \$39,999 | | 06 <input type="checkbox"/> \$50,000 to \$59,999 | | 08 <input type="checkbox"/> \$70,000 or more | |
| 18. Do you speak a language other than English at home? 01 <input type="checkbox"/> Yes If yes, what language is this? _____ 02 <input type="checkbox"/> No | | | | | | | |
| Quý vị có nói một ngôn ngữ nào khác ngoài tiếng Anh ở nhà không? | | | | 05 <input type="checkbox"/> Có | | 06 <input type="checkbox"/> Không | |
| 除了英文外，您在家還說其他的語言嗎？ | | | | 07 <input type="checkbox"/> 是 | | 08 <input type="checkbox"/> 否 | |
| Разговариваете ли вы на каком-либо еще языке, кроме английского, дома? | | | | 09 <input type="checkbox"/> Да | | 10 <input type="checkbox"/> Нет | |
| 집에서 영어가 아닌 다른 언어를 사용하십니까? | | | | 11 <input type="checkbox"/> 예 | | 12 <input type="checkbox"/> 아니오 | |
| 19. How well do you speak English? 01 <input type="checkbox"/> Very well 02 <input type="checkbox"/> Well 03 <input type="checkbox"/> Not well 04 <input type="checkbox"/> Not at all | | | | | | | |
| Quý vị nói tiếng Anh khá không? | | 09 <input type="checkbox"/> Rất khá | | 10 <input type="checkbox"/> Khá | | 11 <input type="checkbox"/> Không khá | |
| 您說英文的程度如何？ | | 13 <input type="checkbox"/> 非常好 | | 14 <input type="checkbox"/> 好 | | 15 <input type="checkbox"/> 好 | |
| Как хорошо вы разговариваете на английском языке? | | 17 <input type="checkbox"/> Очень хорошо | | 18 <input type="checkbox"/> Достаточно хорошо | | 19 <input type="checkbox"/> Не очень хорошо | |
| 영어로 어느 정도로 잘 구사하십니까? | | 21 <input type="checkbox"/> 대단히 잘한다 | | 22 <input type="checkbox"/> 잘한다 | | 23 <input type="checkbox"/> 잘하지 못한다 | |
| | | | | | | 20 <input type="checkbox"/> Вообще не говорю | |
| | | | | | | 24 <input type="checkbox"/> 전혀 하지 못한다 | |

Please return to surveyor or fold, tape 1" from each edge and mail postage-paid. Thank you for taking time to fill out this survey.



BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 596 PORTLAND OR

POSTAGE WILL BE PAID BY THE ADDRESSEE

TRIMET
ATTN: FINANCIAL PLANNING
4012 S.E. 17TH AVENUE
PORTLAND, OR 97202-9911



Encuesta a los pasajeros de TriMet

Favor de llenar este formulario aún si ya lo recibió en otro tren o autobús.

Estimado Pasajero: TriMet necesita saber algunos datos sobre el viaje que hace en estos momentos. Favor de contestar las siguientes preguntas. Cuando termine entrégueselas al encuestador o envíelas por correo.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---------------------------------------|--|---------------------------------------|--------------------------------------|---------------------------------------|--|-----------------------------------|----------------------|---------|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|--|------------------|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|---------------------------------------|--------------------------|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|---------------------------------------|---|------------------------------------|-------------------------------------|--|-------------------------------------|--------------------------------------|---------------------------------------|--|
| 1. ¿En que línea viaja en estos momentos? Línea # _____ Nombre de la ruta/línea _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. ¿Necesita hacer trasbordos de una línea a otra para completar este viaje en una dirección? 01 <input type="checkbox"/> No <input type="checkbox"/> Sí. Si la respuesta es sí, ¿cuántas veces? 02 <input type="checkbox"/> 1 vez 03 <input type="checkbox"/> 2 veces 04 <input type="checkbox"/> 3 veces o más | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Si hace trasbordos en este viaje, ¿de qué líneas a qué líneas trasborda? (no incluya el tren o autobús en que ahora viaja) Línea # _____ Nombre de la ruta/línea _____ Línea # _____ Nombre de la ruta/línea _____ <input type="checkbox"/> MAX <input type="checkbox"/> WES <input type="checkbox"/> Portland Streetcar <input type="checkbox"/> Ruta C-TRAN # _____ <input type="checkbox"/> Transporte SAM _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. ¿Cómo pagó este viaje? (marque una) 01 <input type="checkbox"/> Tarifa de TriMet 02 <input type="checkbox"/> Tarifa de C-TRAN 03 <input type="checkbox"/> Tarifa de Portland Streetcar Si pagó pasaje de Streetcar, ¿qué tipo de pasaje? 01 <input type="checkbox"/> Boleto de 2-horas (\$1) 02 <input type="checkbox"/> Pase Anual Portland Streetcar (\$150) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. ¿Qué usó para pagar en TriMet? (marque una) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="0"> <tr> <td></td> <td>01 EFFECTIVO (boleto de 2-horas)</td> <td>02 BOLETO (talonario de 10)</td> <td>03 PASE de 1-DÍA</td> <td>04 PASE de 7-DÍAS</td> <td>05 PASE de 14-DÍAS</td> <td>06 PASE de MENSUAL/30-DÍAS</td> <td>07 PASE ANUAL</td> </tr> <tr> <td>Adultos</td> <td>01 <input type="checkbox"/> \$2.50</td> <td>01 <input type="checkbox"/> \$25.00</td> <td>01 <input type="checkbox"/> \$5.00</td> <td>01 <input type="checkbox"/> \$26.00</td> <td>01 <input type="checkbox"/> \$51.00</td> <td>01 <input type="checkbox"/> \$100.00</td> <td>01 <input type="checkbox"/> \$1,100.00</td> </tr> <tr> <td>Joven/Estudiante</td> <td>02 <input type="checkbox"/> \$1.65</td> <td>02 <input type="checkbox"/> \$16.50</td> <td>02 <input type="checkbox"/> \$3.30</td> <td>02 <input type="checkbox"/> \$ 8.00</td> <td>02 <input type="checkbox"/> \$15.50</td> <td>02 <input type="checkbox"/> \$ 30.00</td> <td>02 <input type="checkbox"/> \$ 330.00</td> </tr> <tr> <td>Ciudadano Honorable/STAR</td> <td>03 <input type="checkbox"/> \$1.00</td> <td>03 <input type="checkbox"/> \$10.00</td> <td>03 <input type="checkbox"/> \$2.00</td> <td>03 <input type="checkbox"/> \$ 7.00</td> <td>03 <input type="checkbox"/> \$13.50</td> <td>03 <input type="checkbox"/> \$ 26.00</td> <td>03 <input type="checkbox"/> \$ 286.00</td> </tr> <tr> <td>LIFT (servicio de transporte para discapacitados)</td> <td>04 <input type="checkbox"/> \$2.15</td> <td>04 <input type="checkbox"/> \$21.50</td> <td></td> <td>04 <input type="checkbox"/> \$31.50</td> <td>04 <input type="checkbox"/> \$ 62.00</td> <td>04 <input type="checkbox"/> \$ 682.00</td> <td></td> </tr> </table> | | 01 EFFECTIVO (boleto de 2-horas) | 02 BOLETO (talonario de 10) | 03 PASE de 1-DÍA | 04 PASE de 7-DÍAS | 05 PASE de 14-DÍAS | 06 PASE de MENSUAL/30-DÍAS | 07 PASE ANUAL | Adultos | 01 <input type="checkbox"/> \$2.50 | 01 <input type="checkbox"/> \$25.00 | 01 <input type="checkbox"/> \$5.00 | 01 <input type="checkbox"/> \$26.00 | 01 <input type="checkbox"/> \$51.00 | 01 <input type="checkbox"/> \$100.00 | 01 <input type="checkbox"/> \$1,100.00 | Joven/Estudiante | 02 <input type="checkbox"/> \$1.65 | 02 <input type="checkbox"/> \$16.50 | 02 <input type="checkbox"/> \$3.30 | 02 <input type="checkbox"/> \$ 8.00 | 02 <input type="checkbox"/> \$15.50 | 02 <input type="checkbox"/> \$ 30.00 | 02 <input type="checkbox"/> \$ 330.00 | Ciudadano Honorable/STAR | 03 <input type="checkbox"/> \$1.00 | 03 <input type="checkbox"/> \$10.00 | 03 <input type="checkbox"/> \$2.00 | 03 <input type="checkbox"/> \$ 7.00 | 03 <input type="checkbox"/> \$13.50 | 03 <input type="checkbox"/> \$ 26.00 | 03 <input type="checkbox"/> \$ 286.00 | LIFT (servicio de transporte para discapacitados) | 04 <input type="checkbox"/> \$2.15 | 04 <input type="checkbox"/> \$21.50 | | 04 <input type="checkbox"/> \$31.50 | 04 <input type="checkbox"/> \$ 62.00 | 04 <input type="checkbox"/> \$ 682.00 | |
| | 01 EFFECTIVO (boleto de 2-horas) | 02 BOLETO (talonario de 10) | 03 PASE de 1-DÍA | 04 PASE de 7-DÍAS | 05 PASE de 14-DÍAS | 06 PASE de MENSUAL/30-DÍAS | 07 PASE ANUAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adultos | 01 <input type="checkbox"/> \$2.50 | 01 <input type="checkbox"/> \$25.00 | 01 <input type="checkbox"/> \$5.00 | 01 <input type="checkbox"/> \$26.00 | 01 <input type="checkbox"/> \$51.00 | 01 <input type="checkbox"/> \$100.00 | 01 <input type="checkbox"/> \$1,100.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Joven/Estudiante | 02 <input type="checkbox"/> \$1.65 | 02 <input type="checkbox"/> \$16.50 | 02 <input type="checkbox"/> \$3.30 | 02 <input type="checkbox"/> \$ 8.00 | 02 <input type="checkbox"/> \$15.50 | 02 <input type="checkbox"/> \$ 30.00 | 02 <input type="checkbox"/> \$ 330.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ciudadano Honorable/STAR | 03 <input type="checkbox"/> \$1.00 | 03 <input type="checkbox"/> \$10.00 | 03 <input type="checkbox"/> \$2.00 | 03 <input type="checkbox"/> \$ 7.00 | 03 <input type="checkbox"/> \$13.50 | 03 <input type="checkbox"/> \$ 26.00 | 03 <input type="checkbox"/> \$ 286.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LIFT (servicio de transporte para discapacitados) | 04 <input type="checkbox"/> \$2.15 | 04 <input type="checkbox"/> \$21.50 | | 04 <input type="checkbox"/> \$31.50 | 04 <input type="checkbox"/> \$ 62.00 | 04 <input type="checkbox"/> \$ 682.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05 <input type="checkbox"/> Identificación de empleado con etiqueta de TriMet | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06 <input type="checkbox"/> Identificación de la universidad con etiqueta de TriMet | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07 <input type="checkbox"/> Identificación de Escuela Preparatoria con etiqueta de TriMet | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08 <input type="checkbox"/> Pase de Ciudadano Honorable para el centro de la ciudad | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 09 <input type="checkbox"/> Otra _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. Si pagó un solo pasaje, ¿es para un viaje de ida o de ida y vuelta? 01 <input type="checkbox"/> Viaje de ida 02 <input type="checkbox"/> Viaje de ida y vuelta | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. Si viaja con un pase de 1 día, ¿cuántos viajes sencillos hará con él el día de hoy? _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. ¿Dónde compró su pasaje para este viaje? | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 01 <input type="checkbox"/> A bordo del autobús | 05 <input type="checkbox"/> Pase por correo | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 02 <input type="checkbox"/> En una máquina expendedora de boletos | 06 <input type="checkbox"/> En la escuela o el lugar de trabajo | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 03 <input type="checkbox"/> En una oficina de boletos de TriMet | 07 <input type="checkbox"/> En línea | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04 <input type="checkbox"/> En una tienda | 08 <input type="checkbox"/> Lo compré en el tranvía | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 09 <input type="checkbox"/> Una agencia de servicio social lo compró para mí | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 <input type="checkbox"/> Otro _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. ¿Tiene un vehículo que podría haber usado para hacer este viaje ya sea como conductor o como pasajero? 01 <input type="checkbox"/> Sí 02 <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10. ¿Tiene cuenta bancaria de ahorros o cheques? 01 <input type="checkbox"/> Sí 02 <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11. ¿Tiene o usa tarjeta prepagada, tarjeta de débito o tarjeta de crédito? | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 01 <input type="checkbox"/> Sí (marque todo lo que aplica) | 01 <input type="checkbox"/> Tarjeta prepagada 02 <input type="checkbox"/> Tarjeta bancaria de débito 03 <input type="checkbox"/> Tarjeta bancaria de crédito | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 02 <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12. Incluyendo a usted, ¿Cuántas personas viven en su hogar? _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13. En los últimos 30 días, ¿cuántas veces se ha transportado en autobuses de TriMet/MAX? (cuenta cada dirección como un recorrido) _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14. ¿Cuál es su edad? _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15. ¿Es Ud. estudiante universitario? 01 <input type="checkbox"/> Sí, a tiempo completo 02 <input type="checkbox"/> Sí, a medio tiempo 03 <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Si es Ud. estudiante universitario, ¿a qué universidad o college asiste? 01 <input type="checkbox"/> PSU 02 <input type="checkbox"/> PCC 03 <input type="checkbox"/> Otro _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16. ¿Es Ud.: (marque sólo uno) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 01 <input type="checkbox"/> Asiático/De las Islas del Pacífico | 03 <input type="checkbox"/> Caucásico/Blanco | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 02 <input type="checkbox"/> Afroamericano/Negro | 04 <input type="checkbox"/> Hispano/Latino | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 05 <input type="checkbox"/> Multiracial/biracial | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 06 <input type="checkbox"/> Nativo Americano | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 07 <input type="checkbox"/> Otro _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17. ¿Cuál fue el ingreso anual de su hogar antes del pago de impuestos para el año 2011? (marque un cuadro) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 01 <input type="checkbox"/> Menos de \$10,000 | 03 <input type="checkbox"/> \$20,000 a \$29,999 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 02 <input type="checkbox"/> \$10,000 a \$19,999 | 04 <input type="checkbox"/> \$30,000 a \$39,999 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 05 <input type="checkbox"/> \$40,000 a \$49,999 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 06 <input type="checkbox"/> \$50,000 a \$59,999 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 07 <input type="checkbox"/> \$60,000 a \$69,999 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 08 <input type="checkbox"/> \$70,000 o más | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 09 <input type="checkbox"/> No sé | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18. ¿Habla un idioma que no sea inglés? 03 <input type="checkbox"/> Sí ¿Qué idioma es ese? _____ 04 <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19. ¿Cuán bien habla el inglés? 05 <input type="checkbox"/> Muy bien 06 <input type="checkbox"/> Bien 07 <input type="checkbox"/> No bien 08 <input type="checkbox"/> No hablo inglés | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Entregue la tarjeta al encuestador o dóblela, péguela y envíela por correo. No necesita estampilla. Gracias por su atención.

Appendix B

Technical Analysis Results – Summary and Data Tables

Technical Analysis – Summary Tables

Table 1. Equity Analysis Results for Potential Impacts on Weekday Trips

| Policy Area | E-Fare Policy Option | Impacted Trips ¹ | | | | | Potential Disparate Impact? | Potential Disproportionate Burden? | Policy more beneficial to: | |
|---------------|---|-----------------------------|------------|----------------|--------------|------------------|-----------------------------|------------------------------------|----------------------------|------------------|
| | | % Overall | % Minority | % Non-Minority | % Low-Income | % Non-Low-Income | | | Minority Trips | Low-Income Trips |
| Access | Eliminate mailing fare media (passes) | 2.4% | 2.1% | 2.4% | 1.9% | 3.1% | -- | -- | n/a | n/a |
| | Increase to 500+ retail outlets ² (Access to Proposed Network) | 50.7% | 57.0% | 48.4% | 63.1% | 47.2% | -- | -- | ✓ | ✓ |
| | Increase to 500+ retail outlets ² (Growth in Access) | 32.4% | 36.3% | 30.9% | 40.0% | 30.3% | -- | -- | ✓ | ✓ |
| Payment | Automatic reload option for e-card using credit/debit card | 77.1% | 68.1% | 81.7% | 72.6% | 90.5% | ✓ | ✓ | -- | -- |
| Fare Medium | New fare medium - contactless smart credit/debit card | 77.1% | 68.1% | 81.7% | 72.6% | 90.5% | ✓ | ✓ | -- | -- |
| Price | Costs for e-card, (\$3 cost, \$5 min. load) | 52.8% | 49.1% | 55.0% | 53.8% | 55.6% | -- | -- | n/a | n/a |
| | \$5 minimum load on e-card (Impacts on trips where fare is < \$5) | 24.5% | 27.4% | 22.6% | 30.6% | 18.3% | ✓ | ✓ | n/a | n/a |
| | New fare caps available with e-fare | 4.3% | 5.0% | 3.8% | 6.6% | 2.6% | -- | -- | -- | ✓ |
| Fare Products | Eliminate 7-Day Pass (adverse effect) | 1.3% | 1.8% | 1.1% | 1.3% | 1.3% | -- | -- | n/a | n/a |
| | Eliminate 7-Day Pass (fare cap benefit) | 0.5% | 0.9% | 0.4% | 0.7% | 0.3% | -- | -- | ✓ | -- |
| | Eliminate 14-Day Pass (adverse effect) | 1.3% | 1.5% | 1.1% | 1.4% | 1.2% | -- | -- | n/a | n/a |
| | Eliminate 14-Day Pass (fare cap benefit) | 0.7% | 0.7% | 0.6% | 0.8% | 0.7% | -- | -- | -- | -- |

¹Except for the policy on increasing retail outlets, which was analyzed using Census demographic data and represents individuals, not trips.

²TriMet analyzed the policy to increase retail outlets by looking at impacts on the populations within the service district, and did not differentiate between weekday and weekend trips.

Table 2. Equity Analysis Results for Potential Impacts on Weekend Trips

| Policy Area | E-Fare Policy Option | Impacted Trips | | | | | Potential Disparate Impact? | Potential Disproportionate Burden? | Policy more beneficial to: | |
|---------------|---|----------------|------------|----------------|--------------|------------------|-----------------------------|------------------------------------|----------------------------|------------------|
| | | % Overall | % Minority | % Non-Minority | % Low-Income | % Non-Low-Income | | | Minority Trips | Low-Income Trips |
| Access | Eliminate mailing fare media (passes) | 1.6% | 1.6% | 1.5% | 1.2% | 1.7% | -- | -- | n/a | n/a |
| Payment | Automatic reload option for e-card using credit/debit card | 73.1% | 66.0% | 77.8% | 71.3% | 87.8% | ✓ | ✓ | -- | -- |
| Fare Medium | New fare medium - contactless smart credit/debit card | 73.1% | 66.0% | 77.8% | 71.3% | 87.8% | ✓ | ✓ | -- | -- |
| Price | Costs for e-card, (\$3 cost, \$5 min. load) | 50.1% | 45.6% | 52.4% | 48.9% | 54.0% | -- | -- | n/a | n/a |
| | \$5 minimum load on e-card (Impacts on trips where fare is < \$5) | 37.2% | 38.4% | 36.2% | 40.0% | 32.7% | -- | ✓ | n/a | n/a |
| | New fare caps available with e-fare | 7.4% | 9.0% | 6.8% | 10.0% | 4.5% | -- | -- | ✓ | ✓ |
| Fare Products | Eliminate 7-Day Pass (adverse effect) | 2.0% | 2.0% | 2.0% | 2.0% | 2.7% | -- | -- | n/a | n/a |
| | Eliminate 7-Day Pass (fare cap benefit) | 0.7% | 0.8% | 0.7% | 0.7% | 1.0% | -- | -- | -- | -- |
| | Eliminate 14-Day Pass (adverse effect) | 1.8% | 2.3% | 1.7% | 2.0% | 1.9% | -- | -- | n/a | n/a |
| | Eliminate 14-Day Pass (fare cap benefit) | 1.0% | 1.2% | 0.9% | 1.2% | 0.9% | -- | -- | -- | -- |

Technical Analysis – Data Tables by E-Fare Policy

The following tables summarize the rider survey data on fares that TriMet used to evaluate each e-fare policy option.

Elimination of Mail-Order Purchasing of Fare Media

| Weekday Trips | Overall | M | non-M | LI | non-LI |
|---|---------|------|-------|------|--------|
| # Buy Passes by Mail | 119 | 25 | 78 | 31 | 67 |
| Survey Total | 4903 | 1203 | 3238 | 1636 | 2172 |
| % | 2.4% | 2.1% | 2.4% | 1.9% | 3.1% |
| Difference statistically significant at the 95% confidence level? | | No | | Yes | |

| Weekend Trips | Overall | M | non-M | LI | non-LI |
|---|---------|------|-------|------|--------|
| # Buy Passes by Mail | 58 | 15 | 33 | 19 | 20 |
| Survey Total | 3526 | 962 | 2215 | 1547 | 1163 |
| % | 1.6% | 1.6% | 1.5% | 1.2% | 1.7% |
| Difference statistically significant at the 95% confidence level? | | No | | No | |

Automatic Reload Option for E-Card Using a Credit or Debit Card and New Fare Medium to Pay Fares Using a Contactless Smart Credit or Debit Card

These two policy options were analyzed using the same survey data on riders who have a credit/debit card available.

| Weekday Trips | Overall | M | non-M | LI | non-LI |
|---|---------|-------|-------|-------|--------|
| # Riders have credit/debit card | 3839 | 838 | 2719 | 1213 | 2059 |
| Survey Total | 4981 | 1230 | 3329 | 1671 | 2274 |
| % | 77.1% | 68.1% | 81.7% | 72.6% | 90.5% |
| Difference statistically significant at the 95% confidence level? | | Yes | | Yes | |

| Weekend Trips | Overall | M | non-M | LI | non-LI |
|---|---------|-------|-------|-------|--------|
| # Riders have credit/debit card | 2595 | 642 | 1755 | 1111 | 1071 |
| Survey Total | 3550 | 973 | 2255 | 1558 | 1220 |
| % | 73.1% | 66.0% | 77.8% | 71.3% | 87.8% |
| Difference statistically significant at the 95% confidence level? | | Yes | | Yes | |

Costs Related to E-Cards

\$3 one-time card fee for e-card, for initial card and replacement cards, and \$5 minimum load requirement (impacts on trips where fare product will eventually only be available by e-card)

| Weekday Trips | Overall | M | non-M | LI | non-LI |
|---|---------|-------|-------|-------|--------|
| # Use Tickets or Passes | 2681 | 604 | 1840 | 889 | 1264 |
| Survey Total | 5073 | 1230 | 3347 | 1653 | 2274 |
| % | 52.8% | 49.1% | 55.0% | 53.8% | 55.6% |
| Difference statistically significant at the 95% confidence level? | | Yes | | No | |

| Weekend Trips | Overall | M | non-M | LI | non-LI |
|---|---------|-------|-------|-------|--------|
| # Use Tickets or Passes | 1811 | 448 | 1180 | 760 | 648 |
| Survey Total | 3615 | 982 | 2251 | 1553 | 1201 |
| % | 50.1% | 45.6% | 52.4% | 48.9% | 54.0% |
| Difference statistically significant at the 95% confidence level? | | Yes | | Yes | |

\$5 minimum load requirement (impacts on trips where fare is less than \$5)

| Weekday Trips | Overall | M | non-M | LI | non-LI |
|---|---------|-------|-------|-------|--------|
| # Where Fare is Less than \$5 | 1241 | 337 | 756 | 506 | 417 |
| Adult, Youth, HC Cash Fares | 1184 | 318 | 726 | 480 | 403 |
| Youth or HC Day Pass | 57 | 19 | 30 | 26 | 14 |
| Survey Total | 5073 | 1230 | 3347 | 1653 | 2274 |
| % | 24.5% | 27.4% | 22.6% | 30.6% | 18.3% |
| Difference statistically significant at the 95% confidence level? | | Yes | | Yes | |

| Weekend Trips | Overall | M | non-M | LI | non-LI |
|---|---------|-------|-------|-------|--------|
| # Where Fare is Less than \$5 | 1343 | 377 | 816 | 621 | 393 |
| Adult, Youth, HC cash fares | 1267 | 362 | 765 | 592 | 376 |
| Youth or HC day pass | 75 | 15 | 51 | 29 | 17 |
| Survey Total | 3614 | 981 | 2251 | 1553 | 1201 |
| % | 37.2% | 38.4% | 36.2% | 40.0% | 32.7% |
| Difference statistically significant at the 95% confidence level? | | No | | Yes | |

HC = Honored Citizen

New Fare Caps Available with E-Fare

| Weekday Trips | Overall | M | non-M | LI | non-LI |
|--|----------------|----------|--------------|-----------|---------------|
| # Paid by Cash where Rider Travels Frequently Enough to Benefit from Fare Caps | 193 | 53 | 119 | 97 | 57 |
| Adult, > 40 trips/month | 107 | 25 | 70 | 55 | 34 |
| Honored Citizen, > 26 trips/month | 43 | 9 | 30 | 28 | 12 |
| Youth, > 22.4 trips/month | 44 | 19 | 19 | 15 | 11 |
| Survey Total | 4503 | 1051 | 3099 | 1481 | 2147 |
| % | 4.3% | 5.0% | 3.8% | 6.6% | 2.6% |
| Difference statistically significant at the 95% confidence level? | | No | | Yes | |

| Weekend Trips | Overall | M | non-M | LI | non-LI |
|--|----------------|----------|--------------|-----------|---------------|
| # Paid by Cash where Rider Travels Frequently Enough to Benefit from Fare Caps | 227 | 73 | 136 | 134 | 49 |
| Adult, > 40 trips/month | 144 | 41 | 92 | 87 | 37 |
| Honored Citizen, > 26 trips/month | 40 | 10 | 26 | 28 | 8 |
| Youth, > 22.4 trips/month | 43 | 23 | 18 | 19 | 5 |
| Survey Total | 3061 | 812 | 1996 | 1342 | 1104 |
| % | 7.4% | 9.0% | 6.8% | 10.0% | 4.5% |
| Difference statistically significant at the 95% confidence level? | | Yes | | Yes | |

Elimination of 7-Day Pass

Adverse effects of eliminating 7-Day Pass

| Weekday Trips | Overall | M | non-M | LI | non-LI |
|---|---------|------|-------|------|--------|
| # Paid by 7-Day Pass | 64 | 22 | 37 | 21 | 29 |
| Survey Total | 5073 | 1230 | 3347 | 1653 | 2274 |
| % | 1.3% | 1.8% | 1.1% | 1.3% | 1.3% |
| Difference statistically significant at the 95% confidence level? | | No | | No | |

| Weekend Trips | Overall | M | non-M | LI | non-LI |
|---|---------|------|-------|------|--------|
| # Paid by 7-Day Pass | 73 | 20 | 45 | 31 | 33 |
| Survey Total | 3615 | 982 | 2251 | 1553 | 1201 |
| % | 2.0% | 2.0% | 2.0% | 2.0% | 2.7% |
| Difference statistically significant at the 95% confidence level? | | No | | No | |

Benefits of fare caps for riders that travel frequently

| Weekday Trips | Overall | M | non-M | LI | non-LI |
|--|---------|------|-------|------|--------|
| # Paid by 7-Day Pass where Rider Travels Frequently Enough to Benefit from Fare Caps | 24 | 11 | 13 | 11 | 8 |
| Adult, > 40 trips/month | 21 | 9 | 12 | 10 | 7 |
| Honored Citizen, > 26 trips/month | 3 | 2 | 1 | 1 | 1 |
| Youth, > 22.4 trips/month | 0 | 0 | 0 | 0 | 0 |
| Survey Total | 5073 | 1230 | 3347 | 1653 | 2274 |
| % | 0.5% | 0.9% | 0.4% | 0.7% | 0.3% |
| Difference statistically significant at the 95% confidence level? | | Yes | | No | |

| Weekend Trips | Overall | M | non-M | LI | non-LI |
|--|---------|------|-------|------|--------|
| # Paid by 7-Day Pass where Rider Travels Frequently Enough to Benefit from Fare Caps | 27 | 8 | 16 | 11 | 12 |
| Adult, > 40 trips/month | 24 | 8 | 14 | 10 | 11 |
| Honored Citizen, > 26 trips/month | 1 | 0 | 1 | 1 | 1 |
| Youth, > 22.4 trips/month | 1 | 0 | 1 | 0 | 1 |
| Survey Total | 3615 | 982 | 2251 | 1553 | 1201 |
| % | 0.7% | 0.8% | 0.7% | 0.7% | 1.0% |
| Difference statistically significant at the 95% confidence level? | | No | | No | |

Elimination of 14-Day Pass

Adverse effects of eliminating 14-Day Pass

| Weekday Trips | Overall | M | non-M | LI | non-LI |
|---|---------|------|-------|------|--------|
| # Paid by 14-Day Pass | 68 | 19 | 37 | 23 | 27 |
| Survey Total | 5073 | 1230 | 3347 | 1653 | 2274 |
| % | 1.3% | 1.5% | 1.1% | 1.4% | 1.2% |
| Difference statistically significant at the 95% confidence level? | | No | | No | |

| Weekend Trips | Overall | M | non-M | LI | non-LI |
|---|---------|------|-------|------|--------|
| # Paid by 14-Day Pass | 64 | 22 | 38 | 31 | 22 |
| Survey Total | 3615 | 982 | 2251 | 1553 | 1201 |
| % | 1.8% | 2.3% | 1.7% | 2.0% | 1.9% |
| Difference statistically significant at the 95% confidence level? | | No | | No | |

Benefits of fare caps for riders that travel frequently

| Weekday Trips | Overall | M | non-M | LI | non-LI |
|---|---------|------|-------|------|--------|
| # Paid by 14-Day Pass where Rider Travels Frequently Enough to Benefit from Fare Caps | 34 | 9 | 20 | 13 | 16 |
| Adult, > 40 trips/month | 27 | 7 | 16 | 10 | 13 |
| Honored Citizen, > 26 trips/month | 6 | 1 | 4 | 1 | 2 |
| Youth, > 22.4 trips/month | 1 | 1 | 0 | 1 | 0 |
| Survey Total | 5073 | 1230 | 3347 | 1653 | 2274 |
| % | 0.7% | 0.7% | 0.6% | 0.8% | 0.7% |
| Difference statistically significant at the 95% confidence level? | | No | | No | |

| Weekend Trips | Overall | M | non-M | LI | non-LI |
|---|---------|------|-------|------|--------|
| # Paid by 14-Day Pass where Rider Travels Frequently Enough to Benefit from Fare Caps | 35 | 12 | 21 | 19 | 11 |
| Adult, > 40 trips/month | 30 | 10 | 18 | 17 | 9 |
| Honored Citizen, > 26 trips/month | 5 | 2 | 3 | 2 | 2 |
| Youth, > 22.4 trips/month | 0 | 0 | 0 | 0 | 0 |
| Survey Total | 3615 | 982 | 2251 | 1553 | 1201 |
| % | 1.0% | 1.2% | 0.9% | 1.2% | 0.9% |
| Difference statistically significant at the 95% confidence level? | | No | | No | |

Appendix C

Moderator Guide for CBO Constituent Meetings

TriMet Hop FastPass Electronic Fare System
Moderator Guide for Constituent Meetings
with Community Based Organizations (CBOs)
November 6, 2015

Introduction (CBO Staff)

- TriMet is building a new electronic fare system, called the Hop Fastpass.
- The new fare system will include some changes from the current fare system. The purposes of today's meeting are for you to learn more about the new Hop fare system, and to provide your input on how you think you, or your family and friends, might use the Hop system, what you think are possible benefits, and if there are any potential downsides or improvements that TriMet might want to take into consideration.
- TriMet's Board will be voting on whether to adopt some basic features of the Hop system early next year, so your input today is important to help inform the Board's decisions.
- First, TriMet staff will introduce you to how the Hop system will work.
- Then we will have a group discussion on how you think the Hop system will affect you.

Hop 101 (TriMet Staff)

- Why is TriMet investing in the Hop Fastpass?
 - *TriMet is migrating to a regional electronic fare system, called the Hop Fastpass, which is being jointly developed with Portland Streetcar and C-TRAN.*
 - *The goal of Hop is to make it faster, easier, more secure, and more convenient for riders to take the bus or train. This state-of-the-art system will also allow TriMet to offer new benefits to customers, such as fare capping and loss protection, and collect fares more efficiently.*
- What will be different from how riding TriMet is today?
 - *For folks who currently use cash and get a paper transfer or 1-day pass when they board the bus, and want to continue using cash, the system will be the same. They can continue doing what they have always done.*
 - *Starting in 2017, those who want to will be able to use the Hop card to pay their fare when they ride on TriMet, C-TRAN, or Portland Streetcar. Or, you can still pay by cash onboard the buses and at the ticket machines at MAX and WES stations.*

-
- *The new system will allow riders to quickly pay their fare by tapping a reloadable Hop card, their smartphone, or their personal credit/debit card. Paper pass products (i.e. 7-day, 14-day, and Monthly/30-day passes) will be phased out, after a transition period. If riders get a Hop card, their fares will automatically be upgraded to a day pass or monthly pass depending on how frequently they ride.*
 - *It's like getting the benefit of a Day Pass, but you can pay \$2.50 at a time instead of the \$5.00 for the pass upfront (or \$1.25 at a time for Honored Citizen/Youth instead of \$2.50 for the pass).*
 - *You'll also get the benefit of a Monthly Pass with the Hop card. You can pay for one trip at a time, instead of \$100 (for Adults, \$28 for Youth and Honored Citizens) for the pass upfront. Once you have paid \$100 (or \$28) in a calendar month, the rest of the trips you take that month are free. The Hop card will do this automatically.*
 - *Riders will still have the option of purchasing a 2.5-hr ticket and 1-day pass using cash onboard buses and at the ticket machines at MAX and WES stations.*
 - *Ticket machines will issue "e-tickets", which are disposable paper tickets with an electronic chip that act the same as the current paper tickets, but enable riders to "tap on" at Hop Fastpass readers on station platforms.*
 - **How will the Hop Fastpass system work?**
 - *The Hop card is similar to a gift card, and will be available at more than 500 retail outlets across the region. Value can be loaded onto the Hop card at grocery stores, convenience stores and pharmacies, by phone, via mobile app, at TriMet's Pioneer Square ticket office, and online at TriMet's website.*
 - *You will be able to load value onto the Hop card using cash at retailers or your credit/debit/bank card at retailers, online, by mobile app, or by phone.*
 - *Lost-card protection – If you register your Hop card, your stored value will be saved in your account even if you lose your card.*
 - *Riders will be able to go online or use the mobile app to manage their account, view their Hop card account history, or set up automatic reloads when the stored value amount gets low.*
 - **What will it cost riders?**
 - *Fares for riding TriMet will be the same with the Hop card as they are with cash, but with the Hop card riders will pay no more than \$5 per day and \$100 per month (or \$2.50 and \$28 for Honored Citizens and Youth).*

-
- *The Hop card itself will cost a one-time fee of \$3, for a new or replacement card. In order to provide automatic price caps, the Hop system requires that each rider has his or her own card.*
 - *There will be a \$5 minimum requirement every time you load value onto the Hop card. This is not a fee, just a minimum transaction amount (the same as the current TriMet ticketing app has).*
 - How is TriMet trying to address equity issues surrounding the Hop Fastpass?
 - *The Hop card will have daily and monthly price caps. This means you will pay no more than \$5 in one day (or \$2.50 for Honored Citizens and Youth) and no more than \$100 in one calendar month (or \$28 for Honored Citizens and Youth). With the Hop card, you will receive the benefits of a daily or monthly pass without having to pay the cost of the pass upfront. Today, only those who have \$100 (or \$28) at the beginning of the month get the unlimited ride benefit of a monthly pass.*
 - *Even after Hop is in place, you can still use cash to purchase 2.5-hr tickets and 1-day passes onboard the buses and at the ticket machines at MAX and WES stations.*
 - *TriMet will distribute thousands of free Hop cards for a temporary period after launching.*
 - *A transition period after launch will allow users time to learn about how Hop works.*
 - *We're looking for other ideas from community members including you.*
 - Any questions about Hop?

Purpose of Group Discussion (TriMet and CBO)

TriMet Staff:

- TriMet wants to hear from community organizations and riders about how you or your family and friends might use the Hop system, what you think are possible benefits of the system, and if there are any potential downsides or improvements that TriMet might want to take into consideration.
- In addition, whenever we make a change like this one to the fare system, one of the requirements from the federal government is to examine the potential impacts on communities of color and low-income populations.
- We want to make sure that communities of color and low-income populations are able to enjoy the benefits of Hop as much as possible. We also want to identify and try to address any potential negative impacts before the new system is put in place.

-
- As background, TriMet has used data from a recent rider survey to look at the potential impacts of changes proposed in Hop on communities of color and low-income populations. This analysis found that some of the proposed policies, to eliminate transfers and 1-day passes for riders that pay with cash, would have unfair negative impacts on low-income riders.
 - We heard similar input from community organizations and our Transit Equity Advisory Committee, and decided not to move forward with these policies.
 - So, as a result, those who use cash and receive a paper transfer or 1-day pass when boarding the bus, will continue to have these options.

CBO Staff:

- Your input today will help inform the TriMet Board’s discussions around the final policies and changes for the new Hop system. If there are any potential concerns regarding impacts on communities of color and low-income populations, TriMet’s Board wants to take those into consideration as it makes its decisions.
- Some Hop features have already been decided, such as the Hop card having stored value, the daily and monthly price caps on the Hop card, and eliminating current pass products due to the new price caps offered on Hop.
- Some Hop features are still being finalized, such as the places where you can buy and add value to the Hop card and the required minimum load on the Hop card at certain locations. Your input today is important for TriMet’s staff and the Board of Directors to hear, before final decisions are made on the Hop system.

Possible Discussion Questions (CBO Staff)

- We’ve discussed a few of the potential benefits of the Hop card – I’d like to get your feedback on those first.
 - Price capping – Is everybody clear on how that would work, are there any questions? What do you think about this feature? Do you think you would be able to take advantage of that feature?
 - Loss protection – This feature would be available if you registered your card online. That way the system can link the card back to you and know you are the owner. What do you think about this feature? Do you think you would register online to activate this feature?
 - Faster boarding/not needing exact change – One potential advantage of the Hop system is that it should make getting on the bus quicker. If riders do not have to find exact change (or wait for others to do so), the boarding process can speed up, resulting in a

more reliable bus system. What do you think of this feature? If you use cash today, do you think you would switch to the Hop system to take advantage of this feature?

- Added retail outlets – The Hop card will be available at 540 more retail outlets than currently sell TriMet tickets. The retail outlets will be more geographically dispersed throughout the region than current ticket outlets. What do you think of this change? Will having more retail outlets encourage you to use the Hop system?
 - The minimum load is set at \$5 because it's a requirement in TriMet's contract with the retail vendor. This contract increases the retail network by over 500 stores including 7-Eleven, Dollar Tree, Jacksons, RadioShack, Rite Aid, Walgreens, and Wal-Mart. TriMet is also working to add Plaid Pantry to this network.
 - TriMet has options to identify additional retailers for the contract, and set up retailers/partners on their own. What venues could be added to improve access to Hop?
- Initial free card/\$3 fee for replacement – What are your thoughts about the cost of a Hop card? Would a one-time \$3 fee or replacement fee present a significant barrier to your using the card? If TriMet distributes free cards initially, does that help address this concern?
- \$5 minimum load – To keep the costs of the Hop system low and maximize the number of retail outlets, the minimum reload will be \$5. Again, this is not a fee, just the minimum amount of a reload – the equivalent of an adult day pass. Does this present a significant barrier to using the Hop card? If the cash system is still available, does this address the issue since riders who pay by cash will be able to ride as they do today?
- Given the details of the system, do you see yourself using Hop?
 - If so, why?
 - If not, what are the major barriers?
- If you would use Hop, do you think you would get a Hop card, use your smartphone (e.g., Apple or Android Pay), or use your contactless credit/debit card to pay fares?
 - Hop card: Costs \$3 (one-time fee for the card itself) and has \$5 minimum load requirement when you add value. Benefits of daily and monthly caps, lost value protection, and automatic reload if you add value through the Hop app or TriMet's website.
 - Use your smartphone:
 - First option is to use the Hop app. You pay the costs for a Hop card (\$3 one-time fee and \$5 minimum load). Then you load your Hop card onto the app, and can

manage your account through the app. You need to have a credit/debit card to load value through the app. Benefits of daily and monthly caps, lost value protection, and automatic reload.

- Second option is to use Apple/Android Pay. No costs to use this, but you need to have a credit/debit card. Benefit of daily cap, but not monthly cap.
- Use your smart, contactless credit/debit card: No costs to use this. Benefit of daily cap, but not monthly cap.
- If you would get the Hop card:
 - What would be the most convenient way(s) for you to buy a Hop card and add value? Visit a retail outlet, by phone, via mobile app, visit TriMet's Pioneer Square ticket office, or online at TriMet's website?
 - What grocery stores, convenience stores, and pharmacies do you regularly visit, in what neighborhoods or areas?
 - Will the proposed retail network be convenient for you? [*Reference map of the proposed retail network.*]
 - Are there gaps in the retail network, particularly in areas where many minority and low-income populations live?
 - How would you load value on the Hop card? Pay cash at a participating retailer? Or use your credit/debit card, either at a retailer or online/by calling customer service/through the mobile app?
 - When you ride TriMet, do you ride with children over age 6? Would it be worth it to you to purchase a Hop card for them so they can have daily and monthly price caps?
- Other discussion questions?

Conclusion (CBO Staff)

- Thank you very much for your participation today.
- In terms of next steps, we will document your input today and work with TriMet staff to develop a report to the TriMet Board in early January.
- The TriMet Board will hold two meetings about the Hop fare system, called ordinance readings, in January and February 2016. In these meetings, the Board will finalize the basic features and policies of the new Hop system, but TriMet will be looking for ongoing feedback as to how the system works for riders once it is in place.

Appendix D

CBO Summary Reports

- Asian Pacific American Network of Oregon (APANO)
- Black Parent Initiative (BPI)
- Center for Intercultural Organizing (CIO)
- Gladstone High School
- Latino Network
- Native American Youth and Family Center (NAYA)

Dec 1, 2015

Jill Chen Stober
Senior Transportation Planner
KFH Group, Inc.
4920 Elm Street
Suite 350
Bethesda, MD 20814

RE: APANO eFares Discussion Group

Dear Ms. Stober,

This report summarizes APANO's discussion group for the proposed eFares system held on Thursday, November 12 at the APANO offices located at 2788 SE 82nd Ave suite 203, Portland OR 97266. This discussion group brought together 5 Asian Pacific Islander identifying participants who also identified as transit dependent to discuss eFares. The discussion group was additionally supported by staff from Trimet and KFH Group. This report was also supplemented by two additional one-on-one conversations with community members who couldn't make the event.

In summary, our participants were cautiously optimistic about the eFares proposal and felt the benefits (daily/monthly caps, potential for future low-income fare) outweighed the burdens. The key direct concern people did raise pertained primarily to access issues for families with children. Overall, our participants stated that it was primarily the cost of fares in general that was the main obstacle for low income transit riders. We understand TriMet believes the daily and monthly caps, giving away thousands of cards, and allowing riders to still use cash are sufficient as the primary equity mitigations. However, our participants really spoke to the need for policies particularly addressing the challenges for the neediest riders in the future.

We appreciated Trimet's short presentation on Title VI equity analysis and whether there are disproportionate impacts on low-income people or communities of color. This helped us think about potential mitigation strategies, some of which are suggested below.

Below are some selected direct quotations of our participants and their primary concerns.

Racial Profiling:

"I can see it being a problem. We already have racial profiling in fare enforcement. When the cops approach a large group of youth, I can just see it being very difficult. It's just seems worse with an electronic card, checking to see if you paid to get on here. I can just see if person was caught lying to officer, I can see it escalating."

Electronic vs Human Error Concerns

"What if there was a mistake. People vs. machine error and what's more trustworthy." We want to make sure there is a mechanism in place so people can contest system mistakes. Will there someone who can take an explanation or complaints in place?

Fare Capping

Participants like that this benefits people who don't have \$100 at one time.

"Can carry over what you don't use each month and loading value in smaller increments is generally good"

What about families with kids?

“Kids will lose cards, hard to manage for families, why not allow multiple people to use the same card?”

We were told this was an either/or situation. Card can come with daily/monthly cap or cards where you can have multiple users with no caps. Generally, people favored having the cap, but why not give people the option to choose what kind of card they want: Family Cards (with no caps) or Individual Cards (with caps). TriMet staff thought that was an interesting idea.

Why do the cards themselves cost money?

Besides giving cards away for free at first, how can low income riders have better access to cards in the future?

Question about student cards:

We understand it'd be a special PSU Hop card, but is this available to high school youth or students at other colleges and universities?

General location concerns and why aren't the cards sold at train stations?

Two great suggestions arose:

- 1) Maybe they could be at the stations where there is less retail coverage, especially for places East of 82nd.
- 2) “Should sell cards at Title I schools, or juvenile detention centers, anywhere people could use support. Direct service, domestic violence, social service agencies, DHS, etc.”

Decision making process concerns

“Who is making these decisions at Trimet and who are they accountable to. The board doesn't reflect people who ride. I get the sense that TriMet doesn't care about poor people” and “seems like most of the big decisions have already been made.”

Transit costs in general

“Fare is so expensive. If you make minimum wage, transit takes 10% of your income. That is too expensive.” A great mitigation would be looking into creation of a low income fare program.

Question about card Reader placement

“Can you swipe on the train, because I can envision difficulties with it on the platform. Why not put readers on train as well?”

Questions about lost cards and how to get replacements.

How can this be easiest for users that do not understand English.

What's captured in registration process?

If they want to register the card, people will need an email address, but not everyone has an email address. What else can be done to allow users to register the card, especially for non English users and those without emails.

Language Access

TriMet says customer service has access to 120 languages, but how does that work in reality. How long is the delay on the phone and will people actually want to use it. What can be done to ensure non English speaking users have the best possible way of meaningfully engage with Trimet?

In summary, participants felt the discussion was rich and allowed for their concerns about Trimet to be heard in general. They appreciated the chance to participate and weigh in on new Trimet proposals. They would really like to encourage Trimet to consider options to take care of low income riders in the future. Unsurprisingly, though this conversation was focused on eFares, it allowed an avenue for transit riders in our community to voice other concerns such as racial profiling.



Facilitator: Khanh Pham, APANO Environmental Justice Manager

Black Parent Initiative eFare Group Discussion

Meeting Date and Time: Nov. 13, 2015, 10:00 am

Meeting Location: BPI Office, 2915 NE Martin Luther King Blvd, Portland, OR 97212

Staff Contact: Kimberly Porter, Home Visiting Manager

There were four African-American female, teen parent participants at the group. All were between the ages 18-19 and currently receiving state public assistance in the form of TANF (cash benefits) and SNAP (food stamps). There was also four BPI staff, all whom identify as African-American. Three females and one male. Two were Native Oregonians, one from the Midwest (Ohio & Michigan) and the other from Boston, Mass. All identified as middle class with sporadic use of TriMet.

The discussion was heavily centered on how our teen parents feel they are treated differently when traveling on TriMet, either the bus or the Max. There was a major theme with our teens that they face discrimination due to being African-American and teenager. They stated that many of them don't have an ID and are frequently questioned about getting a student pass when they do not have any form of ID indicating they are students. They report more scrutiny by TriMet employees when they are traveling with their kids as they are seen as adults. They report frequently being asked to show their ID's. Many lack high school ID's so when they don't have one and are stopped and questioned that are given a ticket, which they are unable to pay which leads to other sanctions such as warrants and other charges.

Suggestions - All participants were in favor of the eFare card. They also recommended having a key chain to carry their card as well as having an app on their phone where they could reload the card. They also suggested that since many of them don't have a high school ID that TriMet identify locations and process for them to get ID's through TriMet that would complement their eFare card. This would also be helpful for our African immigrant population to avoid unnecessary ticketing.



TriMet Hop Electronic Fare System Community Discussions

The Center for Intercultural Organizing (CIO) conducted two community meetings to get feedback about the TriMet Hop FastPass Electronic Fare System at its Beaverton location. Most of the community members who attended are residents of Washington County, low income, and of immigrant and refugee background. Most notably, many of the participants were refugees who have been in the U.S. for less than five years. This is an important perspective, as they represent some of our region's most underserved communities, and have limited capacity in systems navigation and diverse language needs.

Meeting date and time: Thursday, December 3, 2015; 6:00 – 8:00 PM

Location: Center for Intercultural Organizing Beaverton Office (12625 SW Broadway St. Suite 200, Beaverton, OR 97005)

Number of attendees: 40

Participant demographics:

- Arabic: 21 (5 limited English speakers – Arabic speaking)
- Latino: 13 (6 limited English speakers – Spanish speaking)
- African: 3
- Caucasian: 3

Meeting date and time: Saturday, December 5, 2015; 1:00 – 3:00 PM

Location: Center for Intercultural Organizing Beaverton Office (12625 SW Broadway St. Suite 200, Beaverton, OR 97005)

Number of attendees: 48

Participant demographics:

- Arabic: 16 (1 limited English speaker – Arabic speaking)
- Latino: 9 (3 limited English speakers – Spanish speaking)
- African: 4 (2 limited English – Somali speaking)
- Bhutanese: 16 (16 limited English speakers – Nepali speaking)
- API: 1
- Caucasian: 2

Discussion Points and Take-Aways

Price Capping

Most people welcome the idea of the Hop Card. Community members like the \$5/day and \$100/month cap because it saves money for those who usually spend more on daily travels, and allows credits to roll

over to the next month if folks do not use all \$100. People understood the concept of price capping generally, but they did have a lot of questions. CIO recommends that TriMet establish a thorough outreach plan in order to communicate the benefit to community members, keeping in mind language and cultural barriers.

Card Registration

While community members thought that the loss protection provided by the Hop Card was a good thing, many people will face barriers with registering their cards and will not be able to access that benefit. Only about 30-50% of participants reported that they would register the card. Most reported not having access to internet and not being computer literate. Language barriers also pose limitations to people's abilities to access registration. Many community members liked the idea of being able to register their card over the phone, especially with multilingual language services. However, requiring an email address is still a barrier.

CIO recommends that TriMet provide riders with the option to use their cell phones to register their respective Hop Cards, so they can receive receipts through SMS messaging if email is not available. Over-the-phone registration is a good option for many immigrant and refugee community members, and multi-lingual posters should be used in outreach to make sure the community knows that phone registration is an option. We clearly saw through participants' answers that seniors will be the most negatively impacted by requiring an email address for Hop Card registration, and our most underserved community members will not receive the benefit.

Retail Stores

People generally felt that they would be able to access retail store locations that were listed to buy the Hop Card and refill fare. However, because there were so many participants, we were not able to review the map. With most of the participants from Washington County, there is concern about the distance of stores from where people live and ride the bus. CIO knows through past engagement work—like the Aloha-Reedville Study—that areas like 185th Ave. and Cornell Pass Rd. have unsafe and difficult walking conditions and getting to retail locations could present a significant challenge. We also heard from community members that carrying Hop Cards in ethnically specific stores would help with access. CIO recommends that TriMet actively reach out to ethnically specific small businesses so they know they can offer the Hop Card. We also recommend providing these stores with outreach materials that will inform the community about changes at TriMet.

Card cost and minimum load

People were generally alright with the \$3 cost of the card and \$5 minimum to load the card. However, some folks did express a concern for \$3 cost. People particularly seemed concerned about having to buy a card for each member of the family. If no one in the family has a card, they will need to spend \$8 per person to get a Hop card with the minimum balance, and that can be challenging for our communities. We urge TriMet to continue to think about how a family card might be possible, even if it is just for children. Community members also expressed their desire for a low income fare.

Providing free cards will help with the \$3 cost. We hope that TriMet reaches out to many social service agencies, but also community-based organizations, schools, and places of worship in order to distribute free cards to the community members that most need them.

Community Outreach

For our newcomer communities, it is critical that they receive information about the changes to the TriMet system. Translation into multiple languages is key. We suggest working with refugee resettlement agencies and county health clinics to understand community language needs. One community member suggested that TriMet should have paintings and visuals to represent the new change and the process, which would help all community members to understand changes regardless of language and ability. These instructional images should be posted all over buses and transit stops. Like with the free cards, we suggest TriMet connect with social service agencies, community-based organizations, schools, and places of worship to distribute information about the changes. We also suggest reaching out to diverse communities to participate in the 2016 trial period, so TriMet can thoroughly analyze different problems that might arise for different communities.

Usage and Payment methods

We reviewed the various options and asked participants if they believed they would use the Hop Card, smart phone apps, contactless credit, or cash once the Hop FastPass system is up and running. Participants' answers varied, but it broke down to about one third reporting that they will buy the Hop Card, one third continuing to use cash, and one third using either smart phone apps or a contactless credit card. Also, it was clear that older folks from immigrant and refugee backgrounds were more likely to use cash, because it is what they are most familiar with and they do not use cards or the internet. One community member who works with people who have developmental disabilities with limited English emphasized the importance of combining the Honored Citizen picture ID with the Hop Pass to make it easier for community members.

Of those who will use the hop pass, about 50% reported they would use online methods to refill their card balance, and about 50% reported that they would go to a store. Most folks did not report a concern for how close the stores are to where they live; however, one person who lives in Tualatin expressed concern that the store might be too far for her. As stated before, we do have some concern for the closeness of retail for Washington County residents. We believe that keeping the cash option is very important for our immigrant and refugee elders because of accessibility issues.

Gladstone High School E-Fare Group Discussion

Meeting Date and Time: Nov. 12, 2015, 3:00 pm

Meeting Location: Gladstone High School, 18800 Portland Ave., Gladstone, OR 97027

Staff Contact: Natalie Osburn, Principal

Facilitator: Julia Metz, Business Services Project Manager, Clackamas Workforce Partnership

Four high school students participated in the group discussion. All use TriMet services regularly with a monthly pass, and one student was a minority. All participants indicated they would use the e-fare system. The benefits of fare caps, loss value protection, greater convenience, and faster boarding were attractive to participants. The main concerns included the security of personal information in the e-fare account, having options if they don't have or can't use their smartphone, and the \$5 minimum load. The discussion points are summarized by e-fare topic below.

Fare Caps

- Participants really liked the benefit of fare caps.

Stored Value

- Participants liked the idea that a rider won't pay more than they actually ride, since the stored value on the e-card will roll over to the next month (as opposed to paying for a monthly pass now, and the value is lost if you don't ride frequently enough to justify the cost of the pass).

Faster Boarding

- Participants liked the benefit of faster boarding.

Eliminating Paper Fare Products

- Participants were concerned about people including elders who don't access technology, and wanted to make sure they could still get the benefit of loss value protection. They thought the ability to call customer service regarding the e-card was a good option.
- Participants saw the durability of the e-card as a benefit (as opposed to the current paper student pass, which can go through the wash).

E-Card Costs

- Participants thought the \$3 card cost was reasonable to encourage people not to lose their cards.
- Participants indicated that the \$5 minimum load was reasonable for them, but were concerned about others for whom \$5 would be a hardship.

E-Card Registration/Loss Value Protection

- Participants would register the e-card online, but they were concerned about the system's security regarding their personal information including the credit card information on their e-fare account.
 - TriMet staff explained that the system will be set up so there is no link between personal credit card information and the e-card.
- The e-fare system is a lot better than the current paper fare products in situations where a rider loses their pass.

Retail Outlets

- Adding more retail outlets will help riders use the e-fare system.
- Suggested retail locations included convenience stores (e.g., Vista) and coffee shops (e.g., Starbucks, Black Rocks).

Obtaining an E-Card

- Participants would like to be able to purchase an e-card online and receive it through the mail.
- Suggested the ability to load value onto the e-card at ticket vending machines.
- Suggested selling e-cards through automated retail kiosks similar to Redbox, which could be placed at major bus stops (would need to ensure secure payments for credit cards).
- Participants liked the distribution of free e-cards during the initial period.
 - They suggested having \$5 pre-loaded on the free cards.
 - They also suggested distributing the free cards at retail outlets and onboard vehicles.

Adding Value to E-Card/Managing Account

- Some participants cited a preference to add value by cash (nervous to use credit cards), while others indicated they would probably use a credit card.
- Participants preferred to add value online or at a convenience store.
- It is helpful to have options for loading value onto the e-card, as riders may not be able to get to retail stores on certain days.
- Participants indicated they would use the e-fare mobile app to manage their account, but probably not to load value.
 - A concern identified about using the e-fare mobile app was the need to watch the data limit on their smartphones.
- Suggested that the e-fare mobile app sends notifications, with a preference for texts rather than email, when the account balance is low and when the rider has reached milestones (e.g., when you have taken enough trips during the month to reach the fare cap).

Education and Outreach on E-Fare

- Suggested bus drivers help promote the changes coming with e-fare, displaying information onboard buses, putting ads on TV (e.g., morning news shows) and online (e.g., Pandora ads), and making announcements through community groups and schools.
- Address FAQs such as what happens if the e-fare system malfunctions, what to do if the chip in the e-card is damaged, what to do if you lose your e-card, what information is required to set up an e-fare account, and how to find out the balance on your e-card.
- Clarify that the e-fare mobile app is for account management only, and riders cannot show the app to the bus driver to pay – they must use the e-card.

Other Concerns

- Riders sometimes forget their phones or run out of battery – need other options to pay fares and load value onto e-card.
- Risk of vandalism at e-fare machines/scanning systems or at e-fare vending machines, if implemented.
- TriMet should try to identify and address problems that have arisen for other systems that have electronic fare systems.



LatinoNetwork

www.LatNet.org

410 NE 18th Ave
Portland, OR 97232

info@LatNet.org
503.283.6881

Constituent meetings for the TriMet Hop Fast Pass Electronic Fare Latino Community Focus Group

November 23, 2015 at 6-8 pm

Hosted by Latino Network

Facilitated by Linda Castillo and Antonio Ramirez

Number of Latino community participants: 15

KFH Group staff: 1

TriMet Staff: 3

This session was provided in Spanish, as a majority of the participants were monolingual Spanish speakers. Headsets were provided for translation, as needed.

After introduction and orientation to the focus and form of the evening's discussion, Martin Gonzales of TriMet, provided the group an orientation to the Hop Fastpass system and future changes the community is likely to see. In addition, he provided some background as to how this plan will be reviewed by community, be reviewed by staff, and its eventual path to approval by the TriMet Board. E-fare is scheduled to take effect 2017.

After a Hop Fastpass 101 review as to why the change is occurring and how the system is expected to work, the group heard more on how the new system will be different than the current one. Incorporated in the discussion was how TriMet plans to address equity issues surrounding the Hop Fastpass.

The group was asked to imagine themselves using the Hop Card and if they foresaw any barriers in its use:

Some foreseen, potential barriers were:

- 1) Money might not be transferable from the Hop Fastpass
- 2) There may be challenging or difficult to access purchase venues/sites.
- 3) A physical card is necessary.
- 4) Information on use and user might be shared and **fear confidentiality compromised. Some people concerned that their immigration status might be compromised.**
- 5) Information might be given to the police, unnecessarily.
- 6) Multiple cards may be difficult for a family to navigate. The participants forwarded the concept of a **Family Card** as this might make travel easier for parents traveling with several children.
 - a. Cost of card per person \$3 plus \$5 = \$8 per family member. Concern's this might be a price barrier for some.
 - b. Participants asked if might be family discounts to ease potential price burdens and/or the creation of a 'family card'?
- 7) What if someone doesn't have ID? How can they purchase a card?

- 8) Rider using another ID if info doesn't match registration, might police be involved?
- 9) Those who do not have computer access or are not computer savvy (elderly, esp.) may have greater challenges registering the card. It was suggested that these folks could go to a TriMet office and be assisted. It would be helpful to formalize this mechanism to assist folks.
- 10) We need **more security at transit stop** waiting areas. There are still intoxicated, inappropriate, & belligerent people who congregate there. Would like to somehow to remove them from the transit stops.
- 11) **There is no rollover of unused funds.**

Thereafter, the group discussed potential benefits of the card and provided this feedback on these themes:

Security:

- 1) Protection against 'bad apples', and use of a photo id from TriMet is a good idea.
- 2) Feel safer because of better control over who rides using e-fare card.
- 3) Advantages to card especially if it is registered.
- 4) If I have registered and I lose my card, my investment/transit fund bank is protected.
- 5) Someone without an ID can still purchase a card.

Price Capping:

- 1) Don't have to preload to \$100. Pay what you need at each ride.
- 2) Get charged only when you ride, \$5.00 max per day.
- 3) Save money at the end of the year!
- 4) **Cost savings on multiple trips!**
- 5) Don't get our hands dirty handling cash to make purchase on the go or at machines.
- 6) Cap starts anew every month.

Loss Protection:

- 1) No costs to protect card other than having to register it in advance.
- 2) TriMet explained that the \$3 cost of the card is for the chip and registration services.
- 3) If card is lost or stolen, it can be replaced and funds on card are recuperated.
- 4) **Ability to register card is a great idea.**
- 5) TriMet does not verify or check whether the info you enter.

Faster boarding/no exact change needed:

- 1) Convenient idea as one always doesn't have the necessary change. Can avoid 'bad passes' that are sold on the street.
- 2) One card for all modes of transit; bus, light rail, streetcar, C-Trans.
- 3) **Easy, early boarding with a 'tap' of the card.**
- 4) Ease of use is welcome.
- 5) Can pay with cash, credit/debit card.

Additional retail outlets/Where to get HOP card:

- 1) The group requested an additional retail site at Tienda Doña Maria's grocery store at 6736 NE Killingsworth Avenue at Villa de Clara Vista.
- 2) Additional stores recommended are Plaid Pantry, Dollar Tree, Jackson's, Walmart, Winco and 7-11.

Initial free card/\$3:00 replacement +\$5 minimum load:

How would you use/load Hop card:

- 1) Can a phone app be used to load and at some point use instead of a card. Per TriMet for now, a rider can access Hop card balance and can manage use on their Smart phone. In the future, TriMet will look into using the phone instead of the card for boarding. They will be consulting with Google and Apple on this.

Other benefits:

- 1) Accidentally drop the card in the laundry, it will still be ok!

Other discussion items:

TriMet clarified they do not sell rider information. But if they receive a police subpoena, they will have to legally comply. Otherwise, info will only be available to TriMet customer service to assist rider with their trips and purchases on the e-card. Only info requested will be name, address, email, DOB, telephone, and for the user to create a pin#.

A fare inspector can view card and know when it was last tapped.

Could texting be used as a substitute for email? Not everyone has an email account or is linked to the Internet. TriMet stated it would investigate this option.

Folks were curious what info would show up to driver or upon boarding:

TriMet stated this info would be revealed (whether an adult, youth or honored citizen card, time left on card, time remaining for transfer. Card can be declined if not enough fare on the card. Low balance amount is shown to customer only so that s/he can reload, as needed.

The topic of how much information is collected was an elevated topic for this group. TriMet shared that they will have a history of ridership per month and this history will be collected electronically. At this time it does not note the difference in the use by youth, adult or honored citizen.

Overall, the participants were excited and welcoming of this new concept, rider's technology, and looking forward to using it.



Native American Youth and Family Center

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11.30.15 HopPass Native American Community Discussion NAYA Family Center for KFH Group and TriMet

On November 30, 2015, the Native American Youth & Family Center hosted a discussion group with 13 self-identified Native American TriMet transit riders to learn about and respond to TriMet's new HopPass system. About half of the participants were low income. TriMet staff gave an overview of the new program and answered questions on a variety of topics. Community members were grateful for the opportunity to talk with TriMet staff about equity considerations. Hopefully this conversation will be followed up with meaningful action. Community members were excited by the fact that this new system would make it easier to implement a low-income fare because people could have a link to an account that would establish this status.

One of the most challenging points of contention involved the up front costs. Several participants indicated that the \$3 fee would be burdensome. While they appreciate the initial waiver of the fee, there were concerns and questions associated with what happens when this time period is over and whether it can be extended. For example, one question involved whether or not any value on the card account could be used to pay the \$3 fee if the card gets lost. Another individual asked if it was possible to have a one-time "freebie" card for those that initially got a free card, but may have lost it.

The \$5 minimum load value would be a burden as well. There were questions about whether or not a family deal could happen, and whether value could be transferred from one card to another within the same account. Someone suggested the idea of having multiple chips on one card, i.e. "Rider 1", "Rider 2", etc. The distance between chips would be a very real consideration, so other options would include smaller key ring cards, or at least a ring provided for multiple cards to loop onto. For large, low-income families, losing a purse could be a disaster as it is, much less with all of these costs associated with the cards. For those with the smartphone app, integration between these two systems was requested as backup for situations in which a card is misplaced but there is still value on it.

As direct service providers, NAYA staff and clients present liked the option to load value remotely to the card. This would prevent single-purpose trips to NAYA for clients to pick up bus products, which happens now. On the other hand, for those that do not receive these benefits, the lack of convenient places to add value is a challenge. Participants asked about the reasoning behind why value cannot be added at ticket vending machines. In order to mitigate for those not easily able to access retail values in isolated areas of TriMet's service area, it would be helpful to have some ticket vending machines. This would prevent high costs of implementing them everywhere, but to mitigate for this negative impact in areas most in need of TVMs with efare access.

Overall, participants were excited about the aspects of this system that would make their transit experience more quick and convenient. The maximum load was a draw, as well as the fact that value rolls over month-to-month. This system will be more convenient for clients, and it will be helpful to distribute free cards up front. NAYA would like to explore how we can build a stronger partnership with TriMet so we can identify implementable solutions for a low income fare and so NAYA could become an institutional program so we can better serve our clients and community at-large.