



Equity Analysis: 30 Day Pass Elimination

Department of Diversity & Transit Equity

March 15, 2018

Executive Summary: 30 Day Pass Elimination Equity Analysis

In accordance with Title VI of the Civil Rights Act of 1964 and FTA Circular 4702.1B, TriMet conducts an equity analysis any time fare changes are proposed to ensure that changes do not unfairly impact people of color and low-income populations. The proposal to eliminate the 30-Day pass calls for such an analysis prior to the board taking action.

Methodology

TriMet's Title VI Program outlines the agency's Disparate Impact and Disproportionate Burden policies, as well as the way in which TriMet conducts fare equity analyses. In the case of the proposed fare product elimination, the analysis aimed to answer one main question: **does eliminating the 30-Day pass disproportionately impact minority and low-income riders?** To answer this question, staff utilized data from the most recent TriMet fare survey, conducted onboard in fall 2016.

Findings – Survey Data

Disparate Impact Analysis (Minority Riders)

The analysis found that minorities and non-minorities are likely to purchase 30-Day passes at similar rates, which suggests the potential impacts of the fare change are equally borne by minority and non-minority populations

- Therefore, the proposal to eliminate the 30-Day pass does not present a Disparate Impact.

Disproportionate Burden Analysis (Low-income Riders)

The analysis found that low-income and higher income riders are likely to purchase 30-Day passes at similar rates, which suggests the potential impacts of the fare change are equally borne by low-income and higher income populations.

- Therefore, the proposal to eliminate the 30-Day pass does not present a Disproportionate Burden.

Considerations – Sales Reports

A review of the 30-Day sales reports further suggests minimal impacts due to the overall low demand for this fare product. In fact, the 30-Day pass accounts for 0.77% of all TVM transactions and 0.95% of all mobile ticketing transactions. Furthermore, TVM ticket sales of 30-Day Passes have dropped 33% over a 6-month time period (July 2017 to December 2017).

Table of Contents

I.	Background	1
II.	Authority	1
III.	Title VI Compliance.....	2
	A. Disparate Impact Policy	2
	B. Disproportionate Burden Policy	2
IV.	Proposed Fare Change	3
	A. Description of Changes	3
	B. Data Sources	4
	C. Disparate Impact Analysis	4
	D. Disproportionate Burden Analysis	5
	E. Fare Change Equity Analysis Conclusions	5
	F. Fare Sales and Hop Fastpass™ Considerations	6
V.	Alternative to Address Findings.....	6
VI.	Community Engagement.....	7
	Transit Equity Advisory Committee (TEAC)	7
	TVM Conversion Strategy and Outreach Plan	8

I. Background

TriMet will propose the elimination of the 30-day pass fare product at a date yet to be determined. This Title VI analysis is being conducted now in order to identify any potential impacts that may be pertinent to a more immediate Ticket Vending Machine (TVM) transition strategy.

TriMet introduced 30-day rolling passes less than 10 years ago, with the primary purpose of helping individuals who received income on a schedule that did not easily align with a calendar monthly pass period (e.g. Honored Citizen’s on Social Security get paid around the 3rd of month) as well as to help reduce the high volume of people buying calendar month passes at the TriMet Ticket Office at the end of each month. Currently, the 30-day pass can only be purchased through TVMs and the mobile ticketing application. The proposed policy would eventually eliminate this fare instrument altogether in order to simplify the overall fare structure and to align with the newly launched Hop electronic fare system.

II. Authority

As a recipient of Federal financial assistance, TriMet must ensure that fare changes comply with Title VI of the Civil Rights Act of 1964, which states:

“No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

The FTA has provided specific implementing guidelines and regulations for complying with Title VI in Circular 4702.1B (“Circular”). Due to the interrelated nature of race/ethnicity and income, the Circular instructs transit agencies to consider impacts on low-income populations as well as minority populations; the assessment of potential Title VI issues related to all fare changes¹ is completed through a fare equity analysis. Figure 1 shows the sequence of steps in the equity analysis process.

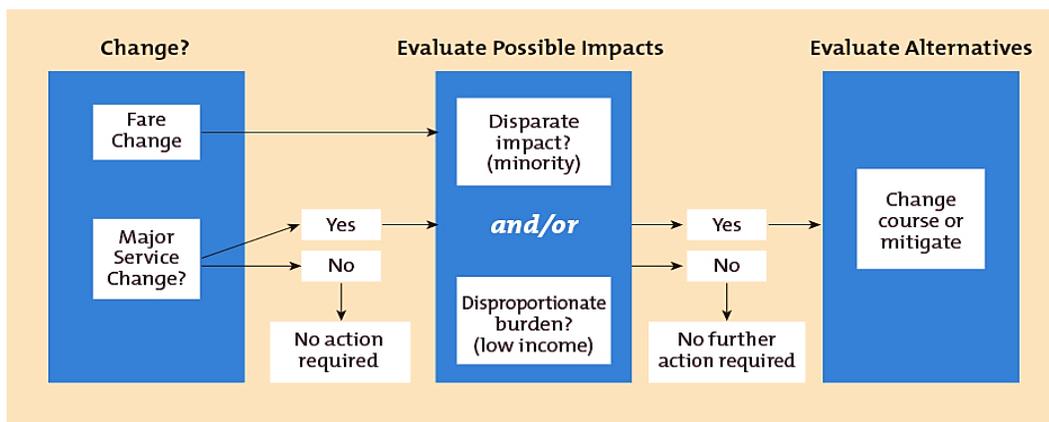


Figure 1: Overview of Title VI Equity Analysis

¹ FTA Circular 4702.1B – Chapter IV-11

III. Title VI Compliance

In the fall of 2016, TriMet updated its Title VI Program, which received concurrence by the Federal Transit Administration (FTA) in 2017. The program outlines agency policies, definitions and procedures for complying with Title VI and performing equity analyses. This includes the agency's fare change, Disparate Impact, and Disproportionate Burden policies.

A. Disparate Impact Policy

Testing for Disparate Impacts evaluates effects on minority riders or populations as compared to non-minority riders or populations. "Minority" is defined as all persons who identify as being part of racial/ethnic groups besides white, non-Hispanic.

Fare Changes

The fare equity analysis requirement applies to all fare changes regardless of the amount of increase or decrease. For proposed changes that would increase or decrease fares on the entire system, or on certain transit modes, or by fare payment type or fare media, the transit provider shall analyze any available information generated from ridership surveys indicating whether minority and/or low-income riders are disproportionately more likely to use the mode of service, payment type, or payment media that would be subject to the fare change².

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 and non-minority populations include all such differences that are documented as statistically significant at the 95 percent confidence level³.

B. Disproportionate Burden Policy

Testing for Disproportionate Burden evaluates potential effects on low-income populations. The analysis is similar to that used to determine potential Disparate Impacts, but comparing low-income – defined as at or below 150% of the federal poverty level – and higher income. Higher income includes all those above 150% of the federal poverty level.

If disparate impacts or disproportionate burdens are identified, the least discriminatory alternative must be implemented.

² FTA Circular 4702.1B – Chapter IV-19

³ TriMet's 2016 Title VI Program

IV. Proposed Fare Change

A. Description of Changes

This fare change includes the eventual elimination of the 30-day pass. An ordinance to do so will be brought forward to the Board at a later date. The elimination of the 7-day and 14-day passes would occur concurrently⁴. Presently, multi-day passes can only be purchased from TVMs and the mobile ticketing application. TVMs will be converted by summer of 2018, to sell 2 ½-hour tickets and 1-Day passes, which is consistent with Board Resolution 15-10-67 approved October 28, 2015. The mobile ticketing application would be phased out on a date yet to be determined. Ultimately, only 2 ½ hour, 1-Day, Month, and Annual passes will be offered in the Hop fare system. The decision for not integrating multi-day passes in the Hop fare system are shown in Table 1.

Table 1: Feasibility Considerations for Excluding Multi-Day Pass Options

Consideration	Detailed Explanation
Customer Experience	With a 1-Day Cap and 1-Month cap (calendar-based), customers always know when their cap resets. There is never a question of whether it is free for one more day or 7 more days – once you reach a cap the customer is good until the end of the month. With a rolling cap, customers simply will not be able to keep track.
Technology	Implementing the technology is feasible, but the 30-Day rolling option would complicate the back end system and the UX/UI would need to be designed for customers. There are many questions to answer in a simple UX/UI, which makes the system complex for users. The ultimate goal of UX and UI design is to make the user's interaction as time efficient and simple as possible.
Accounting	Accounting for a rolling pass makes the accounting drastically more complex. When addressing any reconciliation concerns, staff would have to look at each individual account to see when the cut off was. This would have a compounding effect if the issue was over a few months since staff would have to identify the capping time period.
Customer Service	The number of calls received by TriMet's call center for the electronic fare systems is nominal. Customers understand how the system works. Introducing a rolling cap, would drastically increase the number of calls because customers would be calling to ask when their cap resets, etc.
Fare Capping/Rolling Option	For the population of customers that still want a rolling cap concept, this can be achieved with the calendar-based fare cap.

⁴ In 2015, the agency contracted KFH Group Incorporated to complete a Title VI Fare Equity Analysis for the migration to an integrated electronic fare payment system. The analysis was completed on January 6, 2016. Part of this technical analysis included the elimination of the 7 and 14-day passes. As concluded in that report, there were no disparate impacts or disproportionate burdens found with the proposal and there were no high concerns identified through the public involvement process.

B. Data Sources

The 2016 TriMet on-board Fare Survey collected fare payment and demographic data necessary to conduct a fare equity analysis consistent with the policies described in Section III of this report. 30-Day sales reports (July 18, 2017 to December 31, 2017) from the Ticket Vending Machines, Mobile Ticketing Application, and TriMet’s Ticket Office were also utilized to inform the analysis.

C. Disparate Impact Analysis

The first step is to determine whether a proposed fare change includes a change in pricing levels by fare payment type. For this type of change, 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.

The current fare proposal involves no change in pricing levels (increase or decrease), but removes a payment option from TriMet’s overall fare structure. For this proposed change, the analysis examined whether trips by minority riders may bear a greater share of negative impacts, or experience a lesser share of the positive impacts than trips by non-minority riders. As shown in Table 2, the data indicates that trips by minorities and non-minorities are likely to purchase 30-Day passes at similar rates, which suggests the potential impacts of the fare change are equally borne by both minority and non-minority populations. Therefore, the analyses indicates no potential Disparate Impact for minority riders.

Table 2: Comparison of Minority Status for 30-Day Pass Purchases, By Location

TriMet 2016 Fare Survey

Purchase location	Weekdays	
	Non-minority Fares (n=4,412) ¹	Minority Fares (n=2,594)
Ticket Vending Machine	3%	3%
Mobile Ticketing Application	3%	2%
Subnet	6%	5%

¹n indicate weighted number of survey responses

Grey cells indicate statistically significant difference at the 95% confidence level

- **Thus, given the available data, TriMet finds no potential Disparate Impact on minority populations under this proposal to eliminate the 30-Day pass.**

D. Disproportionate Burden Analysis

The first step is to determine whether a proposed fare change includes a change in pricing levels by fare payment type. For this type of change, 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 higher income riders.

The current fare proposal involves no change in pricing levels (increase or decrease), but removes a payment option from TriMet’s overall fare structure. For this proposed change, the analysis examined whether trips made by low-income riders may bear a greater share of negative impacts, or experience a lesser share of the positive impacts than higher income riders due to the elimination of the 30-Day pass. As shown in Table 3, the data indicates that low-income and higher income riders are likely to purchase 30-Day passes at similar rates, which suggests the potential impacts of the fare change are equally borne by both low-income and higher income populations. Therefore, the analyses indicates no potential Disproportionate Burden for low-income riders.

Table 3: Comparison of Income Status for 30-Day Pass Purchases, By Location

TriMet 2016 Fare Survey

Purchase location	Weekdays	
	Higher Income Fares (n=3,171) ¹	Low Income ² Fares (n=2,300)
Ticket Vending Machine	3%	3%
Mobile Ticketing Application	3%	2%
Subnet	6%	5%

¹n indicate weighted number of survey responses

Grey cells indicate statistically significant difference at the 95% confidence level

² Low-income defined as at or below 150% federal poverty level; Higher income is all others.

- **Thus, given the available data, TriMet finds no potential Disproportionate Burden on low-income populations under this proposal to eliminate the 30-Day pass.**

E. Fare Change Equity Analysis Conclusions

The proposed fare changes required a fare equity analysis to identify any potential disparate impacts on minority riders and/or disproportionate burden on low-income riders. The technical analysis using survey data found:

- o No potential disparate impact on minority riders associated with the 30-Day pass elimination
- o No potential disproportionate burden on low-income riders associated with the 30-Day pass elimination

The result of this equity analysis concludes that minority and low-income riders will not be limited or denied the benefits of the proposed fare changes.

F. Fare Sales and Hop Fastpass™ Considerations

Since the advent of Hop in July of 2017, the overall demand for 30-Day passes by TriMet’s ridership have been extremely low. In fact, only 0.85% of all transactions from TVMs and the mobile ticketing application between July 18, 2017 and December 31, 2017 were associated with the 30-Day pass. The sales reports further show that TVMs primarily serve infrequent riders and visitors, as only 0.77% of all TVM transactions are for 30-Day passes. Furthermore, only 0.95% of all mobile ticketing application transactions are for 30-Day passes. As shown in Table 4, a vast majority of the fare sales at TVMs and the mobile ticketing application are attributed to Single fare and 1-Day passes. A contributing factor is the ridership’s adoption of the Hop electronic fare system. The system’s pay-as-you-go pass feature eliminates the up-front cost of purchasing a calendar month pass. Moreover, the fare capping feature enables riders to purchase a monthly pass in smaller increments. Hop effectively provides the same pass product, with additional days allotted once the fare cap has been met.

Table 4: Percentage of Fare Sales by Fare Instrument

TriMet Ticket Vending Machines and Mobile Ticketing Application Sales Reports

Fares	2017					
	July	August	September	October	November	December
2.5 Hour Ticket	57.7%	60.7%	61.7%	63.1%	63.5%	63.9%
1-Day	39.8%	36.7%	35.8%	34.4%	34.1%	34.1%
30-Day	0.8%	0.9%	0.9%	0.9%	0.9%	0.8%
7 and 14-Day	1.8%	1.7%	1.4%	1.6%	1.5%	1.1%
TOTAL	100%	100%	100%	100%	100%	100%

V. Alternative to Address Findings

The findings of this analysis do not prompt TriMet to consider possible measures to avoid, minimize, and/or mitigate adverse impacts on minority or low-income riders. Albeit there were no adverse impacts presented, TriMet made the determination to move forward with a TVM Transition Outreach

Plan along with a TVM Conversion Strategy as a means to minimize impacted riders that purchase multi-day passes from TVMs. While the mobile ticketing application would eventually be phased out, it does provide a short-term option for multi-day pass users, as 87%⁵ of all TriMet riders have access to a smart phone.

VI. Community Engagement

TriMet's initial public engagement efforts played an important role in the equity analysis process. Direct input from TriMet's Transit Equity Advisory Committee (TEAC) and minority and low-income community members on the anticipated impacts of the 30-Day pass elimination complemented the above technical analysis by providing additional insights beyond the survey data analysis.

Common concerns identified through the public engagement were people with low income levels and people who are on a program that provides a 30-Day pass during the month. People with low income expressed their issue as being they have so many bills due at the beginning of the month and they wait for their mid-month paycheck to purchase their transit passes. Additionally, they are transit dependent and need to ride more than 20 days per month – the 30-Day pass is a better value than purchasing 30 1-Day passes. The second concern (i.e., programs that provide 30-Day passes) were most often related to the need to provide people with a transit subsidy that does not start on the first of the month, due to the nature of their program.

Transit Equity Advisory Committee (TEAC)

TriMet's Transit Equity Advisory Committee reviewed the proposal and Title VI equity analysis and provided several recommendations. A point of focus for the Committee was the availability of and access to the 30-Day pass during the transition to eliminate this fare product from all channels of sales. Although the newly launched Hop electronic fare system will garner a multitude of benefits in general, there is still concern for low-income riders to realize the full benefits of the fare capping, at least until the launch of the Low Income Fare Program in July of 2018 and the Hop retail network is completely established (500 plus locations). One strategy identified by TEAC to help address the aforementioned concern may be engaging in targeted communication throughout the transition in order to build support of this proposal. A second recommendation is to offer multi-day passes in various locations (i.e., TVMs and/or retail outlets) throughout the service district.

⁵ 2017 TriMet Attitude and Awareness Survey

TVM Conversion Strategy and Outreach Plan

Although there were no disparate impacts or disproportionate burdens identified in the Title VI equity analysis, TriMet established a conversion strategy and outreach plan to mitigate any potential impacts unforeseen in the TVM upgrades.

The TVM conversion entails removing multi-day pass options and upgrading 254 machines to vend Single 2 ½ hour tickets and 1-Day passes. Several factors inform the conversion strategy and timeline. The first was whether a TVM is located in a high concentrated area of minority and/or low-income populations. This was completed using a ¼ of a mile buffer around each TVM and evaluating if the surrounding census blocks were above TriMet's service district average for minority and low-income (28% and 24%, respectively). The second factor included 30-Day pass sales reports over a six-month period (July 2017 to December 2017). The sales reports indicated the total transactions for each location ranged from 20 to 700 sales over the course of 6 months. If sales counts were above 300 for a particular location, the TVMs in those locations were flagged as an above average frequented TVM. The combination of both factors identified 30 out of 104 locations to be preserved until the later part of the project. Ultimately, the conversion work plan (i.e., a beta test and 8 stages) will serve as a guide for the Fare Equipment Maintenance (FEM) journey workers. Staff recommended this strategy to the FEM Manager and Project Lead on March 5, 2018. Concurrence of the recommendation was received on March 7, 2018.

The conversion strategy supported the development of the outreach plan. TriMet will launch a TVM transition outreach plan to educate riders and the general public. The objective is to inform all impacted riders and the TriMet community about the forthcoming upgrades as well as the timeline for the transition to full system implementation of the new TVMs.