

Pierce Transit

# Title VI Fare Equity Analysis

Pursuant to FTA Circular 4702.1B

New Pierce Transit-Specific Adult Monthly Pass

November 6, 2018

# PIERCE TRANSIT TITLE VI FARE EQUITY ANALYSIS

## TABLE OF CONTENTS

1	INTRODUCTION.....	1
2	BACKGROUND.....	1
2.1	Proposed Fare Changes.....	1
2.2	Federal Transit Administration Requirements.....	3
3	TITLE VI POLICIES & DEFINITIONS.....	4
3.1	Pierce Transit Disparate Impact Policy.....	4
3.2	Pierce Transit Disproportionate Burden Policy.....	5
4	METHODOLOGY.....	6
5	EFFECTS OF PROPOSED FARE CHANGES ON MINORITY AND LOW-INCOME RIDERS.....	11
5.1	Disparate Impact Analysis.....	11
5.2	Disproportionate Burden Analysis.....	11

# PIERCE TRANSIT TITLE VI FARE EQUITY ANALYSIS

## 1 INTRODUCTION

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance. This analysis was conducted in compliance with Federal Transit Administration (FTA) Circular 4702.1B, which requires any FTA recipient serving a population of 200,000 or greater to evaluate any fare change and any major service change at the planning and programming stages to determine whether those changes have a discriminatory impact. This document is an analysis of Pierce Transit's proposed addition of a Pierce Transit specific adult monthly pass.

## 2 BACKGROUND

### 2.1 Proposed Fare Changes

Pierce Transit conducted a comprehensive fare review in 2012. The primary recommendations from that review were to: eliminate paper transfers; introduce an all-day pass and introduce a lower-priced Pierce Transit-specific adult pass. The elimination of paper transfers and the introduction of an all-day pass occurred in 2014. The lower-priced Pierce Transit-specific adult pass was recommended due to rider demographics, specifically, household income. Data from the 2017 customer satisfaction survey shows that 60 percent of our riders live in households with annual household incomes of \$25,000 or less. A lower-priced Pierce Transit-specific adult pass will help make the purchase of a monthly pass within the reach of more of our riders.

Currently, the regional adult pass costs \$72 per month. This pass allows unlimited rides for a calendar month on Pierce Transit local service and provides a transfer value toward more expensive rides on regional partner systems (e.g. Sound Transit and King County Metro). Most Pierce Transit riders do not transfer to regional systems. The proposed Pierce Transit-Specific Adult Monthly and 30-Day Rolling Period Pass has a recommended price of \$62 which is \$10 under the regional pass price. This pass has a trip value of \$2.00, which covers the adult fare on Pierce Transit buses. The pass is already an option in the ORCA system so all we would have to do is submit this new price and a go live date.

An added feature is that this pass would also be available on the mobile app Pierce Pay. Through Pierce Pay, this pass would be a 30-day rolling period pass, not tied to a calendar month. Meaning, that the first day a rider uses the pass, the rider then gets 30 consecutive days of use. This is different than ORCA passes which are only valid from the first day of each month until the last day of the month and which cannot be purchased after the 15th day of any given month. The 30-day rolling period pass on Pierce Pay will give riders more flexibility.

A public hearing was held at the October 8, 2018 Board of Commissioners meeting to allow the public to comment on the proposed new monthly pass. The Community Transportation Advisory Group (CTAG) voiced support for this Pass.

This fare equity analysis analyzes whether the addition of a new PT-specific adult monthly pass will have a disparate impact on Pierce Transit's minority riders and/or a disproportionate burden on the agency's low-income riders.

## 2.2 FEDERAL TRANSIT ADMINISTRATION REQUIREMENTS

FTA requires that its recipients evaluate the impacts of fixed-route fare changes on minority and low-income populations. If the transit provider finds potential disparate impacts or disproportionate burdens and then modifies the proposed changes in order to avoid, minimize or mitigate those impacts, the transit provider must reanalyze the proposed changes in order to determine whether the modifications actually removed the potential disparate impacts or disproportionate burdens of the changes.

If a transit provider chooses not to alter the proposed fare changes despite the disparate impact on minority ridership or disproportionate burden on low-income ridership, or if the transit provider finds, even after the revisions, that minority or low-income riders will continue to bear a disproportionate share of the proposed fare change, the transit provider may implement the fare change only if:

- the transit provider has a substantial legitimate justification for the proposed fare change, **and**
- the transit provider can show that there are no alternatives that would have a less disparate impact on minority riders but would still accomplish the transit provider's legitimate program goals.

If the transit provider determines that a proposed fare change will have a disparate impact or disproportionate burden, the transit provider shall analyze the alternatives to determine whether alternatives exist that would serve the same legitimate objectives but with less of a disparate or disproportionate effect on the basis of race, color, national origin, or income status. Where disparate impacts are identified, the transit provider shall provide a meaningful opportunity for public comment on any proposed mitigation measures, including any less discriminatory alternatives that may be available.

This fare equity analysis analyzes whether the addition of a PT-specific adult monthly pass will have a disparate impact on Pierce Transit's minority riders and/or a disproportionate burden on the agency's low-income riders.

### 3 TITLE VI POLICIES & DEFINITIONS

Pierce Transit's Board of Commissioners adopted new policies in February 2013 related to Title VI which apply to fare changes: Disparate Impact Policy; and Disproportionate Burden Policy. The requirement for these policies comes from Federal Transit Administration (FTA) Circular 4702.1B, "Title VI Requirements and Guidelines for Federal Transit Administration Recipients" which became effective October 1, 2012. The Circular requires any FTA recipient that operates 50 or more fixed route vehicles in peak service and serving a population of 200,000 persons or greater to evaluate any fare change and any major service change at the planning and programming stages to determine whether those changes have a discriminatory impact.

#### 3.1 Pierce Transit Disparate Impact Policy

The purpose of this policy is to establish a threshold which identifies when adverse effects of a major service change or any fare change are borne disproportionately by minority populations.

A disparate impact occurs when the minority population<sup>1</sup> adversely affected by a fare or service change is ten percent more than the average minority population of Pierce Transit's service area.

*(paragraph not relevant to fare changes removed)*

If Pierce Transit finds a potential disparate impact, the agency will take steps to avoid, minimize or mitigate impacts and then reanalyze the modified service plan to determine whether the impacts were removed. If Pierce Transit chooses not to alter the proposed changes, the agency may implement the service or fare change if there is substantial legitimate justification for the change AND the agency can show that there are no alternatives that would have less of an impact on the minority population and would still accomplish the agency's legitimate program goals.

---

<sup>1</sup> **Minority Population** – Persons identifying themselves as a race other than white or of Hispanic origin, self-reported in the U.S. Census.

### 3.2 Pierce Transit Disproportionate Burden Policy

The purpose of this policy is to establish a threshold which identifies when the adverse effects of a major service change or any fare change are borne disproportionately by low-income<sup>2</sup> populations.

A disproportionate burden occurs when the low-income population adversely affected by a fare or service change is five percent more than the average low-income population of Pierce Transit's service area.

*(paragraph not relevant to fare changes removed)*

If Pierce Transit finds a potential disproportionate burden, the agency will take steps to avoid, minimize or mitigate impacts and then reanalyze the modified service plan to determine whether the impacts were removed. If Pierce Transit chooses not to alter the proposed changes, the agency may implement the service or fare change if there is substantial legitimate justification for the change AND the agency can show that there are no alternatives that would have less of an impact on low-income population and would still accomplish the agency's legitimate program goals.

---

<sup>2</sup> **Low-Income Population** – Persons reporting as being under the federal household poverty limit as defined by the U.S. Department of Health and Human Services. In 2016 the poverty limit was \$24,563 for a family of four.

## 4 METHODOLOGY

Staff used data from Pierce Transit's 2017 Customer Satisfaction Survey to assist with the fare equity analysis. This survey of 615 Pierce Transit Riders provides local system-wide representation proportionate to weekday ridership by route and time of day on Pierce Transit's local fixed routes. A two-phase approach was used for data collection. A database of potential respondents was developed through several different outreach methods and were asked to provide contact information – email and/or phone number. Those who provided an email address were initially contacted by email and asked to complete the survey online. To encourage online completes, a \$5 incentive (in the form of a coffee card) was offered. If they did not respond to the email invitation and they also provided a phone number, they were contacted by phone. Customers who only provided a phone number were contacted by phone to complete the survey. Surveys were completed with 615 respondents – 339 online and 276 by telephone. Of those 615 respondents, 506 were riders who paid adult fares. The new monthly PT-specific pass is an adult fare so this group is the primary subject of the analysis in Tables 4-3 and 4-4 below.

Data collection occurred from October 16 through December 3, 2017. The data from the 2017 survey represents the most current data on our riders available to Pierce Transit.

The 2017 survey provides data on the following:

- Trip purpose (commute, school, work, medical, shopping, recreation)
- Payment method (Paper Ticket, Paper Day Pass, Mobile Ticket, Mobile Pass, ORCA Pass, ORCA e-purse, Cash, UPass, Clover Park ID, Other)
- Fare type (Adult, Youth, Senior, Disabled)
- Time of day (peak, mid-day, evening, weekends)
- Routes ridden
- Ridership
  - Very Infrequent (0-2 Trips)
  - Infrequent (3-10 Trips)
  - Moderate (11-20 Trips)
  - Frequent (21-50 Trips)
  - Very Frequent (>50 Trips)
- Length of time riding Pierce Transit (years)
- Number of transfers
- Overall satisfaction with Pierce Transit (Dissatisfied, Neutral, Satisfied)
  - Comfort/Cleanliness (stops, buses)
  - Drivers

- Personal safety/security
- Transit Centers/Park and Ride lots
- Information
- Customer Service
- Demographics
  - Number of vehicles in household (None, 1, 2+)
  - Driver's license (yes/no)
  - Employment status
  - Length of residency in Pierce County
  - Household size and ages
  - Income (less than \$7.5K, \$7.5-\$15K, \$15K-\$25K, \$25K-\$35K...)
  - Gender
  - Ethnicity
  - Phone type (cell/landline)

The majority of customers surveyed are dependent on Pierce Transit for transportation—that is, they do not have a driver's license and/or access to a vehicle for their personal use. Only two out five customers surveyed in 2017 have a driver's license. Approximately three out of five (59%) customers surveyed have one or more vehicles in their household. However, fewer than half (48%) of those report that the vehicle is available for their personal use. The survey provides valuable information about the demographics of the agency's customers and their fare payment methods. In terms of ethnicity, 40% of Pierce Transit's riders identified themselves as non-white. Sixty percent of riders have annual incomes of less than \$25,000. The US Department of Health and Human Services' poverty threshold is dependent on household size. Table 4-1 below shows these thresholds for the 48 contiguous states and District of Columbia:

**TABLE 4-1 2016 FEDERAL POVERTY THRESHOLDS**

Size of family unit	Weighted average thresholds	Related children under 18 years								
		None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person (unrelated individual):	\$12,228									
Under age 65.....	\$12,486	\$12,486								
Aged 65 and older.....	\$11,511	\$11,511								
Two people:	\$15,569									
Householder under age 65.....	\$16,151	\$16,072	\$16,543							
Householder aged 65 and older.....	\$14,522	\$14,507	\$16,480							
Three people.....	\$19,105	\$18,774	\$19,318	\$19,337						
Four people.....	\$24,563	\$24,755	\$25,160	\$24,339	\$24,424					
Five people.....	\$29,111	\$29,854	\$30,288	\$29,360	\$28,643	\$28,205				
Six people.....	\$32,928	\$34,337	\$34,473	\$33,763	\$33,082	\$32,070	\$31,470			
Seven people.....	\$37,458	\$39,509	\$39,756	\$38,905	\$38,313	\$37,208	\$35,920	\$34,507		
Eight people.....	\$41,781	\$44,188	\$44,578	\$43,776	\$43,072	\$42,075	\$40,809	\$39,491	\$39,156	
Nine people or more.....	\$49,721	\$53,155	\$53,413	\$52,702	\$52,106	\$51,127	\$49,779	\$48,561	\$48,259	\$46,400

Source: U.S. Census Bureau

Table 4-2 below shows the proposed changes to adult fares, by fare type. No changes are proposed for Youth, or Senior/Disabled fares.

**TABLE 4-2 PROPOSED FARE CHANGES**

Fare Type	Cost		Change	
	Existing	Proposed	Absolute	Percentage
Adult ORCA Monthly Pass	\$ 72.00	\$ 72.00	\$ -	0%
<b>Adult PT-Specific Pass (30 day rolling)</b>	<b>N/A – new fare</b>	<b>\$ 62.00</b>	<b>N/A – new fare</b>	<b>N/A</b>
Adult Cash	\$ 2.00	\$ 2.00	\$ -	0%
Adult ORCA e-purse	\$ 2.00	\$ 2.00	\$ -	0%
Adult ORCA Regional All-day Pass	\$ 8.00	\$ 8.00	\$ -	0%
Adult Mobile Ticket	\$ 2.00	\$ 2.00	\$ -	0%
Adult Paper One-ride Ticket	\$ 2.00	\$ 2.00	\$ -	0%
Adult Mobile All-day Pass	\$ 5.00	\$ 5.00	\$ -	0%
Youth ORCA Pass	\$ 36.00	\$ 36.00	\$ -	0%
Youth Cash	\$ 1.00	\$ 1.00		
Youth e-purse	\$ 1.00	\$ 1.00	\$ -	0%
Youth Ticket	\$ 1.00	\$ 1.00	\$ -	0%
Senior/Disabled ORCA Pass	\$ 36.00	\$ 36.00	\$ -	0%
Senior/Disabled Cash	\$ 1.00	\$ 1.00		
Senior/Disabled e-purse	\$ 1.00	\$ 1.00	\$ -	0%
Senior/Disabled Ticket	\$ 1.00	\$ 1.00	\$ -	0%

Table 4-3 below provides the data on how Pierce Transit’s adult riders paid their fares. We examine characteristics of adult riders because the new Pierce Transit-Specific Monthly Pass would be an adult fare. Senior, Youth and Disabled fares are not affected.

**TABLE 4-3 PIERCE TRANSIT ADULT-FARE RIDERS BY FARE PAYMENT TYPE**

Fare Type	Usage by Group (%)					More Likely to Switch to New PT-Specific Monthly Pass?
	All Riders	Minority Riders	Difference (> +10%)	Low-income Riders	Difference (> +5%)	
Cash	28.5%	29.2%	0.70%	31.9%	3.40%	No
Paper one-ride ticket	2.0%	1.0%	-1.00%	3.0%	1.00%	No
Paper All-Day Pass	10.1%	10.8%	0.70%	15.3%	5.20%	No
Mobile ticket	3.0%	3.1%	0.10%	2.6%	-0.40%	Yes
Mobile Local All-Day Pass	1.2%	0.0%	-1.20%	1.3%	0.10%	Yes
ORCA Regional All-Day Pass	4.3%	5.1%	0.80%	4.7%	0.40%	Yes
ORCA Monthly Pass	18.0%	20.0%	2.00%	18.3%	0.30%	Yes
ORCA e-purse	21.5%	19.0%	-2.50%	17.4%	-4.10%	Yes
ORCA annual pass	7.9%	7.2%	-0.70%	3.4%	-4.50%	No
UPASS	3.0%	3.6%	0.60%	1.3%	-1.70%	No
Clover Park ID	0.6%	1.0%	0.40%	0.9%	0.30%	No
<b>Total</b>	<b>100%</b>	<b>100%</b>		<b>100%</b>		

**TABLE 4-4 PT RIDERS MORE LIKELY TO CONSIDER SWITCHING TO NEW PT-SPECIFIC MONTHLY PASS**

Fare Type	Usage by Group (%)				
	All Riders	Minority Riders	Difference (> +10%)	Low-income Riders	Difference (> +5%)
Mobile ticket	3.0%	3.1%	0.10%	2.6%	-0.40%
Mobile All-Day Pass	1.2%	0.0%	-1.20%	1.3%	0.10%
ORCA All-Day Pass	4.3%	5.1%	0.80%	4.7%	0.40%
ORCA Monthly Pass	18.0%	20.0%	2.00%	18.3%	0.30%
ORCA e-purse	21.5%	19.0%	-2.50%	17.4%	-4.10%
<b>Total</b>	<b>48%</b>	<b>47%</b>	<b>-0.80%</b>	<b>44%</b>	<b>-3.70%</b>

The data provided in Table 4-3 and 4-4 provides the basis for the equity analysis which is provided below in Section 5.

## 5 EFFECTS OF PROPOSED FARE CHANGES ON MINORITY AND LOW-INCOME RIDERS

Pierce Transit's Disparate Impact (DI) and Disproportionate Burden (DB) policies are stated such that only fare types and media that are used by more than 10% of minority riders and 5% of the low-income riders could be subject to a finding of DI or DB.

### 5.1 Disparate Impact Analysis

Pierce Transit's policy (see Section 3.2) states that a disparate impact occurs when the minority population adversely affected by a fare or service change is 10% more than the average minority population of Pierce Transit's service area. In the case of a fare change, the intent of the policy is to compare the difference between the percentage of all riders using that fare type and the percentage of minority riders using that fare type, and to look at whether more minority riders are more impacted by the change than all riders. Table 4-3 provides this data for all current adult fare payment options in the darker green column entitled "Difference > +10%?". However, we are not analyzing changes to existing fares. Since we are analyzing a brand-new fare type, we need to make assumptions regarding which riders would be more likely to consider switching to the new monthly pass. Table 4-4 shows which fare types are assumed to have potential for some of those riders to switch to the new pass; these include riders who currently use: Mobile Ticket, Mobile All-Day Pass, ORCA All-Day Pass, Orca Monthly Pass, and ORCA e-purse. In Table 4-4 where these are grouped, we again look at the darker green column entitled "Difference > +10%". We see that individually and in aggregate, there are no fare types with a difference of greater than 10%, and in aggregate the difference between all riders and minority riders who use these fare types is less than 1%, so there would be no disparate impact to minority riders of the proposed changes.

### 5.2 Disproportionate Burden Analysis

Pierce Transit's policy states that a disproportionate burden occurs when the low-income population adversely affected by a fare or service change is 5% more than the average low-income population of Pierce Transit's service area. In the case of a fare change, this means that we must examine the difference between the percentage of all riders using that fare type and the percentage of low-income riders using that fare type, and look at whether more low-income riders are more impacted by the change than all riders. Table 4-3 provides this data in the final darker blue shaded column entitled "Difference > +5%?". The Paper All-Day Pass has just over 5% more low-income riders than all adult riders (so any increases to that fare could have a disproportionate burden on low-income riders). However, we are not analyzing changes to existing fares. Since we are analyzing a brand-new fare type, we need to make assumptions regarding which riders would be more likely to consider switching to the new monthly pass. Table 4-4 shows which fare types are assumed to have potential for some of those riders to switch to the new pass; these include riders who currently use: Mobile Ticket, Mobile All-Day Pass, ORCA All-Day Pass, Orca Monthly Pass, and ORCA e-purse. In Table 4-4 where these are grouped, we again look at the darker blue column entitled "Difference > +5%". We see that individually and in aggregate, there are no fare types with a difference of greater than 5%, and in aggregate the difference between all riders and low-income riders who use these fare types is less than 4%, so there would be no disproportionate burden to low-income riders of the proposed changes.