

Pierce Transit

# Title VI Fare Equity Analysis

Pursuant to FTA Circular 4702.1B

New Regional Day Pass

March 2015

# PIERCE TRANSIT TITLE VI FARE EQUITY ANALYSIS

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# 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 the proposed introduction of a new Regional Day Pass (RDP).

## 2 BACKGROUND

### 2.1 The ORCA System for Regional Fare Payment

In 2009, the six public transit agencies in the central Puget Sound region - King County Metro, Sound Transit, Pierce Transit, Community Transit, Everett Transit and Kitsap Transit - and the Washington State Ferry System, implemented the ORCA smart card system for regional fare payment. By means of the ORCA system, the six partner transit agencies provide a level of fare integration unique in the U.S. Customers may purchase a range of regional ORCA passes based on different fare values that encompass the fares of all the partner agencies. Regional ORCA passes are valid at their fare value towards fare payment on all partner agencies, and ORCA e-purse fare payment on one agency provides full-value for transfers to another agency. The ORCA system provides for revenue apportionment between the transit agencies based on actual ORCA ridership.

### 2.2 Regional Day Pass Demonstration

The six ORCA partner transit agencies implemented an ORCA Regional Day Pass demonstration program from April through September, 2014. This demonstration was focused on targeting the travel and tourist industry. The purpose of this demonstration program was to test the market for a regional all-day pass product valid for fare payment on transit service in the region. The ORCA day passes offered in this demonstration were valid for fare payment up to \$4.00, and were priced at \$9.00. The price and fare value of the pass were established to allow infrequent riders - uncertain about the number of trips they might need to take or what fares they would need to pay during the course of the day - to pay a premium for fare certainty.

A total of 5,249 Regional Day Passes were sold during the demonstration, accounting for about \$47,000 of revenue and over 17,000 boardings regionwide. An examination of sales location and new ORCA card sales indicates this demonstration was successful in targeting the travel/tourist market. However, day pass sales and boardings represented a very small fraction of revenue and boardings for each agency.

Over the course of the demonstration, there was a total of about 194 RDP boardings on Pierce Transit, representing about 4% of all RDPs sold throughout the region. These represented 0.03% of total ORCA e-purse boardings on Pierce Transit and 0.004% of total boardings on Pierce Transit during the six month period.

### **2.3 Regional Day Pass Proposal**

Based on the results of the Regional Day Pass Demonstration, the six ORCA transit agencies are proposing to establish a permanent Regional Day Pass valid for a fare value of \$3.50 for a price of \$8.00 (two times the value plus a \$1.00 administration fee).

## 2.4 Federal Transit Administration Requirements

FTA requires that its recipients evaluate the impacts of 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 introduction of a new Regional Day 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.

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<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.

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<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 2013 the poverty limit was \$23,550.

## 4 METHODOLOGY

Staff used data from Pierce Transit's 2014 Customer Satisfaction Survey to assist with the fare equity analysis. This survey of 650 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. Respondents were initially intercepted at major transfer and boarding locations as well as onboard key routes and asked to provide contact information in order to participate in a telephone survey. Surveys were completed with 650 respondents (only 557 responded to the question about how they paid their fare). The maximum margin of error for this survey is plus or minus 3.8 percentage points at the 95 percent confidence level. That is, in 95 out of 100 cases, the survey result will not differ from the general population by more than 3.8 percentage points in either direction.

Data collection occurred from April 7 to May 15, 2014. The data from the 2014 survey represents the most current data on our riders available to Pierce Transit.

The 2014 survey provides data on the following:

- Trip purpose (work, home, school, appointment, shopping, recreation)
- Payment method (ORCA Pass, ORCA other, Cash, Other)
- Time of day (peak, mid-day, evening)
- Ridership
  - Occasional (0 to 9 trips per month)
  - Infrequent (10 to 59 trips per month)
  - Frequent (60+ trips per month)
- Overall satisfaction with Pierce Transit (Dissatisfied, Neutral, Satisfied)
- Number of vehicles in household (None, 1, 2+)
- Income (less than \$20K, \$20K–\$30K, greater than \$30K)
- Age (16–34, 35–54, 65 and older)
- Gender
- Ethnicity
- English Language Proficiency

The survey provides valuable information about the demographics of the agency's weekday customers and their fare payment methods. In terms of ethnicity, 33% of Pierce Transit's riders identified themselves as non-white. With an average household size of 2.8, 44% of riders have annual incomes of



less than \$20,000. This is the threshold for “low income” used in the analysis of the ridership data. This is also the equivalent of the poverty threshold for 3- to 4-person households. The US Department of Health and Human Services’ poverty threshold is dependent on household size. Table 4-1 below shows these thresholds:

**TABLE 4-1 2013 POVERTY GUIDELINES FOR THE 48 CONTIGUOUS STATES AND THE DISTRICT OF COLUMBIA**

Persons in family/household	Poverty guideline
For families/households with more than 8 persons, add \$4,020 for each additional person.	
1	\$11,490
2	15,510
3	19,530
4	23,550
5	27,570
6	31,590
7	35,610
8	39,630

Table 4-2 below provides the data on Pierce Transit’s riders by the type of fare they used to ride transit. Data from survey respondents is extrapolated to provide data on all Pierce Transit riders, based on 2013 total ridership of 10,344,991 boardings.

**TABLE 4-2 PIERCE TRANSIT SYSTEM BOARDINGS BY FARE PAYMENT TYPE**

% of Total	Usage by Group				
	Fare Type	Overall	Minority	Difference (> 10%?)	Low Income
Adult ORCA Pass	19.5%	18.6%	-0.9%	16.0%	-3.5%
Adult Cash	35.3%	39.4%	4.0%	32.0%	-3.3%
Adult e-purse	12.9%	16.5%	3.6%	11.5%	-1.4%
Adult Ticket	0.7%	0.5%	-0.2%	0.0%	-0.7%
Youth ORCA Pass	5.6%	3.7%	-1.9%	5.5%	-0.1%
Youth Cash	3.1%	4.8%	1.7%	1.5%	-1.6%
Youth e-purse	0.8%	1.1%	0.2%	0.5%	-0.3%
Youth Ticket	0.2%	0.5%	0.4%	0.0%	-0.2%
Senior/Disabled ORCA Pass	13.1%	10.1%	-3.0%	19.0%	5.9%
Senior/Disabled Cash	1.9%	1.1%	-0.9%	3.5%	1.6%
Senior/Disabled e-purse	6.9%	3.7%	-3.1%	10.5%	3.6%
Senior/Disabled Ticket	0.0%	0.0%	0.0%	0.0%	0.0%
Total	100%	100%		100%	

Conducting an impact analysis of a new fare product presents some challenges. Although the demonstration program did ask day pass purchasers to complete an online survey, no demographic data was collected. Even had this data been collected, there were only 100 surveys completed, and these seem to be more heavily weighted to local on-line purchasers than the program as a whole. So we don't know a great deal about the purchasers of the RDP during the demonstration.

Since we don't know very much about the actual purchasers of the RDP, we are using the data we have about our riders and those who use e-purse. A rider who purchases a Regional Day Pass must load the RDP product onto an ORCA card. The RDP user will likely be someone who does not ride routinely and does not have a monthly pass loaded onto their ORCA card. This more casual user is most like someone who is an e-purse user (. For this reason we look at the demographics of e-purse users. Table 4-3 below shows Pierce Transit's overall, minority, and low income riders. The first section shows total ridership and total e-purse users. The second section shows ridership during the months of the demonstration project, and extrapolates

the number e-purse users and actual RDP users. The third section shows the RDP use as a percentage of all fares and as a percentage of all e-purse fares.

**TABLE 4-3 PIERCE TRANSIT REGIONAL DAY PASS DEMONSTRATION BOARDINGS**

<b>Fare Type</b>	<b>PT Overall</b>	<b>Minority riders</b>	<b>Low Income Riders</b>
Pierce Transit System Ridership	10,344,991	34%	36%
Total E-purse Users	1,333,602	43%	32%
Total Apr-Sep 2014 Ridership	5,186,778	1,749,436	1,861,102
Apr-Sep 2014 ORCA e-purse fares pd	669,094	288,666	214,171
Apr-Sep 2014 PT RDP usage	194	84	62
RDP % of all fares	0.004%	0.002%	0.001%
RDP % of e-purse fares	0.03%	0.01%	0.01%

The data provided above in Tables 4-2 and 4-3 provide 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

### 5.1 Disparate Impact Analysis and Disproportionate Burden Analysis

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.

As mentioned in section 4 above, a rider who purchases a Regional Day Pass is considered a more casual user and is most comparable to someone who is an e-purse user. For this reason we look at the demographics of e-purse users to determine whether there are impacts to minority or low-income e-purse users. The bottom row of Table 4-3, above, shows RDP as a percent of all e-purse fares. The percent usage is very small – one one hundredth of a percent, for both minority and low income riders.

We may also consider whether there is a disproportionate benefit to non-minority and non-low-income riders. Since no other fares will be changed or removed that are currently available to minority and low-income riders, and the RDP is more for convenience rather than cost-effectiveness, it is never likely to be used by a significant proportion of riders.

Since there is very small usage of the RDP and no existing fares are changing upon the introduction of the RDP, there is no disparate impact to Pierce Transit's minority riders nor disproportionate burden to Pierce Transit's low-income riders due to the introduction of a new Regional Day Pass.

RDP usage will continue to be monitored as Pierce Transit conducts future Customer Satisfaction Surveys every 2-3 years.