

Pierce Transit

Title VI Service Equity Analysis

Pursuant to FTA Circular 4702.1B

Route 101 Temporary Suspension

July 2023

Pierce Transit – Scheduling Dept.

PIERCE TRANSIT TITLE VI SERVICE EQUITY ANALYSIS

ROUTE 101 TEMPORARY SUSPENSION

TABLE OF CONTENTS

1	INTRODUCTION.....	1
2	BACKGROUND.....	1
2.1	ACTION.....	2
3	TITLE VI POLICIES AND DEFINITIONS.....	2
3.1	PIERCE TRANSIT MAJOR SERVICE CHANGE POLICY.....	2
3.2	PIERCE TRANSIT DISPARATE IMPACT POLICY.....	2
3.3	PIERCE TRANSIT DISPROPORTIONATE BURDEN POLICY.....	3
4	METHODOLOGY.....	3
5	EFFECTS OF SERVICE CHANGE ON LOW-INCOME AND MINORITY POPULATIONS.....	4
5.1	FREQUENCY CHANGES.....	5
5.2	DISPARATE IMPACT ANALYSIS.....	5
5.3	DISPROPORTIONATE BURDEN ANALYSIS.....	5
6	OUTREACH AND DECISION MAKING.....	6
7	APPENDIX.....	7
7.1	MAP OF ROUTES MEETING THRESHOLD FOR MAJOR SERVICE CHANGE.....	7
7.2	MAP OF ROUTE 101.....	8
7.3	MAP OF ROUTE 100 AND ROUTE 101 INTERSECTION.....	9

PIERCE TRANSIT TITLE VI SERVICE EQUITY ANALYSIS

ROUTE 101 TEMPORARY SUSPENSION

1 INTRODUCTION

- Title VI of the Civil Rights Act of 1964 prohibits discrimination on 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 a Title VI analysis of the temporary suspension of some Pierce Transit Route 101 trips. Route 101 is a seasonal route which has historically run within the timeframe of June - September.

2 BACKGROUND

- With a shortage of staff due to the COVID-19 Pandemic, Pierce Transit has had to balance its available resources with the demand of its customers. Routes with lower ridership, reduced fare revenues and unsatisfactory performance metrics have been and are currently weighed to ensure system-wide productivity.
- As of the March 2023 service change, Pierce Transit has recovered 85% of its annual service hours from Pre-Covid (Mar 2020).
- The Route 101, also known as the Gig Harbor Trolley, is a seasonal route that typically runs daily between June-September. However, in 2023 the route is proposed to only run two days a week from July 1 – August 31. Compared to 2021 seasonal service, the Route 101 will operate 96% less trips. This temporary suspension of trips also reflects 65% reduction in weekly service hours operated and 89% reduction in weekly miles operated.
- The route operates in a similar fashion to Pierce Transit's Route 100, but often with a lower frequency and a specially wrapped bus design. As illustrated in the Appendix 7.3 Map, Route 101 intersects with 74% of the existing, non-seasonal Route 100.
- While the trolley has run from 2014 – 2023 (did not run in 2020 or 2022 due to the COVID-19 Pandemic), Pierce Transit's allocated hours to the trolley would best be utilized to higher efficiency routes and routes that don't overlap with other routes at such a high percentage.
- Pierce Transit's Major Service Change Policy as well as Pierce Transit Code (Ch. 1.60 – Public Hearing Procedures) require a Title VI analysis and a public hearing to be undertaken when a route is changed by twenty percent or more. The temporary suspension of portions of Route 101 service constitutes a major service change.

2.1 ACTION

- Throughout the course of the pandemic, Pierce Transit Staff aimed to maintain service on higher-ridership days, trips and routes while also considering the effects to regional access and impacts to low income and minority communities. Additionally, seasonal routes, like the Route 101, were considered each year but were only operated if the supply of transit operators could meet the demand. Datasets that aided in this decision-making include: annualized route productivity, daily ridership trends (both prior to and during the pandemic), and 2021 Census Block data for minority and low-income populations within the service area.
- To inform the public of the changes in service, staff issued press releases, rider alerts, and utilized technology to communicate changes throughout the rapidly changing pandemic.
- Route 101, due to its temporary suspension of trips, was subsequently processed as a Major Service Change with an equity analysis to identify and evaluate adverse effects on minority and low-income populations.
- Results of that analysis for Route 101 are contained in this report, showing the percentage of burden borne by minority and low-income populations.

3 TITLE VI POLICIES AND DEFINITIONS

Pierce Transit's Board of Commissioners adopted three new policies in February 2013 related to Title VI that guide this analysis: Major Service Change Policy; 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 MAJOR SERVICE CHANGE POLICY

The purpose of this policy is to establish a threshold that defines a major service change and to define an adverse effect caused by a major service change.

A major service change is defined as any change in service on any individual route that would add or eliminate more than twenty percent of the route revenue miles or twenty percent of the route revenue hours. All major service changes will be subject to an equity analysis which includes an analysis of adverse effects on minority and low-income populations. An adverse effect is defined as a geographical or time-based reduction in service which includes but is not limited to: span of service changes, frequency changes, route segment elimination, re-routing, or route elimination.

3.2 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 population¹ adversely affected by a fare or service change is ten percent more than the average minority population of Pierce Transit's service area. Disparate impacts on routes with either span of service changes and/or frequency changes will be determined by analyzing all routes with such changes together. Disparate impacts on routes with segment elimination, re-routing, or route elimination will be determined on a route by route basis.

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.

3.3 **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-income² 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. Disproportionate burden on routes with either span of service changes and/or frequency changes will be determined by analyzing all routes with such changes together. Disproportionate burden on routes with segment elimination, re-routing, or route elimination will be determined on a route by route basis.

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.

4 **METHODOLOGY**

Once routes with major service changes or eliminations were identified, Pierce Transit Staff used Remix (www.remix.com) to aid in further Title VI analysis. Remix allows users to easily calculate the demographic information within a quarter mile of a route's stops using the following steps:

1. Get the population near a route, including its low income and minority percentage.

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

² **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 2023, the poverty limit is \$30,000 for a family of four.

- For each route, build a shape that represents the area within quarter mile of any of its stops.
 - Intersect the catchment area with 2017-2021 ACS Census data. Get a list of block groups and the percentage overlap with each.
 - For each block group, take the percentage of overlap and multiply it by the block group's statistics.
- Get the population, minority population, and low income population for each group and sum them together. This is the total population a route could serve.

Pierce Transit staff then used the following steps to estimate potential impacts to low-income and minority populations served by each route. Calculations can be found in section 5 of this report.

2. Compare the number of people-trips, before and after.
 - Multiply the population near a route times the number of trips it makes (per year) to get "people-trips".
 - Repeat for low-income and minority populations to get "low income people-trips" and "minority people trips".
 - Compare these numbers between the before and after versions of the route, to get a set of people-trip differences.
3. Get the total difference in people-trips across the transit system.
 - Repeat the process above for every route in the transit system.
 - Sum together the difference in people trips. This will return three numbers: total difference in people-trips, total difference in low-income people-trips, and total difference in minority people trips.
4. Calculate the change borne by low-income and minority populations.
 - Divide the total difference in low-income people trips by the total difference in people-trips to get the percentage of change borne by those with low incomes.
 - Repeat for minority people-trips.
5. Compare the percentage change to the average in the service area.
 - Calculate the average percentage of low-income and minority populations across the entire service area.
 - Subtract from the change borne by those populations.
 - Get two final numbers: the delta between the impact this set of transit changes had on low income and minority populations compared to any average change.

5 EFFECTS OF SERVICE CHANGE ON LOW-INCOME AND MINORITY POPULATIONS

Pierce Transit is required to evaluate changes to span and frequency as separate categories in order to determine whether disparate impacts or disproportionate burdens exist at a systematic level under each category. Conversely, changes to routing—in this case, route suspension—is required to be analyzed on a route-by-route basis to determine disparate impacts/disproportionate burdens.

5.1 FREQUENCY CHANGES

Table 5-1 illustrates the impact to minority and low-income populations served by Route 101. See Appendix 7.1 and 7.2 for a map of Route 101.

Table 5-1: Routes Experiencing Temporary Suspension and Impact to Low-Income and Minority Populations

Route	Before Suspension (2021)				After Suspension (2023)				Difference						
	Population (within 1/4 mi)	Low Income	Minority	Trips (Annually)	Population (within 1/4 mi)	Low Income	Minority	Trips (Annually)	People-Trips (Population * Trips)	Low Income People-Trips	Minority People-Trips	Change Borne by Low Income	Change Borne by Minorities	Change in Annual Trips	Trip Count Change from Original
101	6,385	4.35%	16.48%	2,840	6,385	4.35%	16.48%	117	-17,386,355	-756,163	-2,864,567	4%	16%	-2,723	-96%
Total									-17,386,355	-756,163	-2,864,567				

Source: Remix Title VI Engine, US Census Bureau, 2017-2022 American Community Survey (ACS) 5-Year Estimates.

	Low Income	Minority
Change Borne By	4.3%	16.5%
PTBA Average	10.5%	40.5%
Difference	-6.2%	-24.0%

5.2 DISPARATE IMPACT ANALYSIS

Pierce Transit’s policy 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.

Of the population affected by proposed changes to service **frequency**, 16.5% is minority (Table 5.1), 24% less than the system average. Because the minority population affected is not more than 10% of the average minority population of Pierce Transit’s service area, there is no disparate impact due to changes in frequency.

5.3 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.

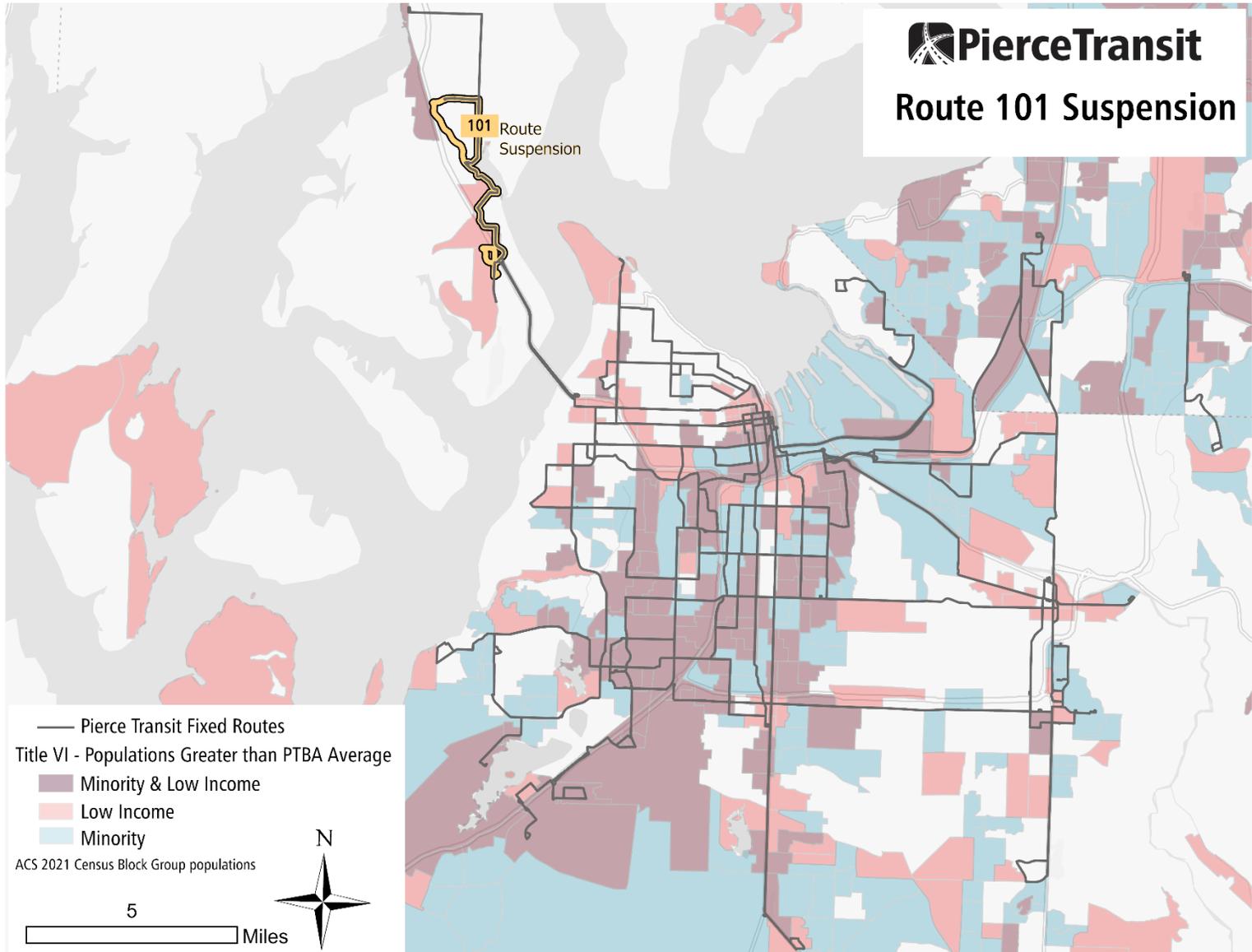
Of the population affected by proposed changes to service **frequency**, 4.3% is low income (Table 5.1). This is 6.2% less than the system average low-income population of 10.5%. Because the low income population affected is not more than 5% of the average low income population of Pierce Transit’s service area, there is no disproportionate burden due to changes in service frequency.

6 OUTREACH AND DECISION MAKING

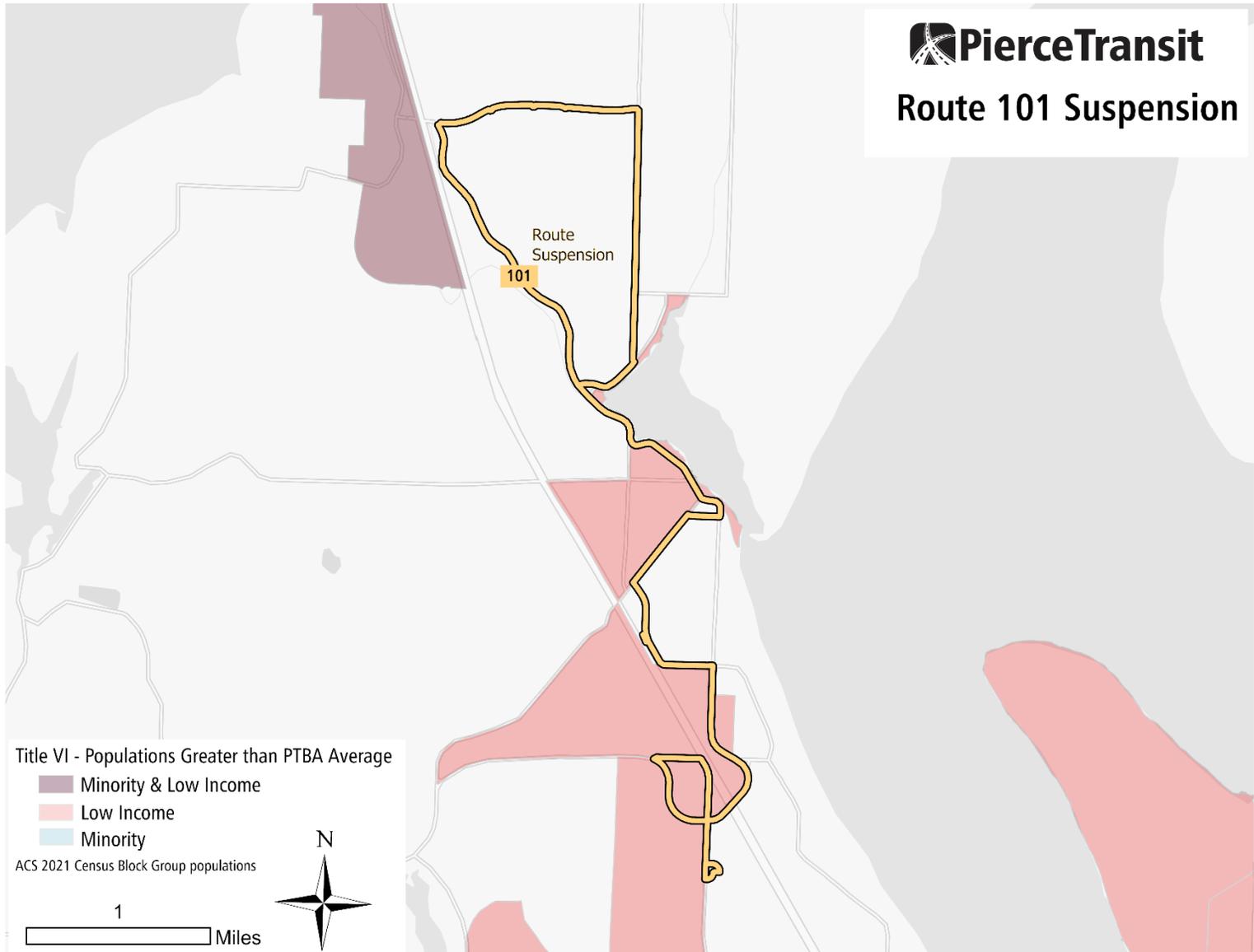
The temporary suspension of Route 101 trips is considered a major service change under Pierce Transit’s Major Service Change Policy and requires a Title VI Service Equity Analysis and public outreach. Since this evaluation is being completed before the public hearing, public comments at this time are not available. However, Pierce Transit’s Board of Commissioners will hold a Public Hearing on the suspension of Route 101 trips on July 10, 2023. Legal notices will be published on June 29, 2023, 10 days in advance of the Public Hearing. The legal notice will also be published on Pierce Transit’s web site in advance of the public hearing.

7 APPENDIX

7.1 MAP OF ROUTES MEETING THRESHOLD FOR MAJOR SERVICE CHANGE



7.2 MAP OF ROUTE 101



7.3 MAP OF ROUTE 100 AND ROUTE 101 INTERSECTION

