



**Title VI Service Equity Analysis: Covid-19 Service Changes**  
**Department of Transit Equity, Inclusion, and Community Affairs**  
**March 6, 2021**

## Executive Summary

The Federal Transit Administration published guidance to provide clarity regarding how COVID-19 preparations impact certain FTA requirements. The document details when a Title VI equity analyses must be performed for emergency service cuts and changes during the pandemic. Specifically, if a transit agency chooses to make any changes permanent, then the transit agency must perform a service equity analysis to ensure the changes do not unfairly impact people of color and low-income populations. The dramatic decline in ridership and the uncertain timing of any recovery signified the decision to make the temporary changes permanent. Thus, an analysis is required prior to the TriMet Board of Directors taking action.

## Methodology

TriMet's Title VI Program outlines the agency's Major Service Change, Disparate Impact, and Disproportionate Burden policies, as well as the way in which TriMet conducts Equity Analyses. Major Service Changes are analyzed for both potential adverse effects and distribution of benefits. This is done at the line-level and system-level, and the analysis seeks to identify any potential disparities based on race/ethnicity or income.

## Major Service Changes

The changes to thirty existing lines meet TriMet's established thresholds for Major Service Changes:

Line 2 - Division	Line 24 - Fremont/NW 18th	Line 56 - Scholls Ferry Rd
Line 4 - Fessenden	Line 33 - McLoughlin/King Rd	Line 57 - TV Hwy/Forest Grove
Line 6 - MLK	Line 35 - Macadam/Greeley	Line 58 - Canyon Rd
Line 8 - Jackson Park	Line 39 - Lewis & Clark	Line 63 - Washington Park/Arlington Hts
Line 12 - Barbur/Sandy Blvd	Line 45 - Garden Home	Line 67 - Bethany/158th
Line 14 - Hawthorne	Line 46 - North Hillsboro	Line 79 - Clackamas/Oregon City
Line 18 - Hillside	Line 48 - Baseline	Line 80 - Kane/Troutdale Rd
Line 19 - Woodstock/Glisan	Line 50 - Cedar Mill	Line 93 - Tigard/Sherwood
Line 20 - Burnside	Line 52 - Farmington/185th	Line 152 - Milwaukie
Line 22 - Parkrose	Line 54 - Beaverton	Line 272 - PDX Night Bus

## Findings

1. **No system level disparate impact or disproportionate burden** for the 30 major service decreases.
2. **A slightly greater percentage** of the District's minority population will be negatively impacted from the permanent service reductions compared to the non-minority population (73% vs. 69.8%, respectively)
3. **A greater percentage** of the District's low-income population will be negatively impacted from the permanent service reductions compared to the higher income population (76.4% vs. 69.3%, respectively)
4. Eight out of the thirty Covid-related service reductions are on lines in service areas with **average-or-above average minority populations**. Reducing service on these lines **does not** raise concerns of an inequitable distribution of burdens.
5. Fourteen out of the thirty Covid-related service reductions are on lines in service areas with **average-or-above low-income populations**. Reducing service on these lines **does not** raise concerns of an inequitable distribution of burdens.

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## I. Background

Due to the Covid-19 pandemic of 2020, TriMet temporarily reduced service<sup>1</sup> on April 5<sup>th</sup> to reflect the reality of dropping ridership. TriMet took a compassionate, equitable and balanced approach to determine how best to reduce service based on the demand, while also serving the needs of our community and maintaining as much service as possible for those who must travel for essential purposes. Priority was placed on preserving access to hospitals and major health care providers, as well as major employment centers. Keeping service in low-income and minority areas was also important as more ridership were seen on those lines than many other lines.

On April 7, 2020, the FTA published guidance, indicating that if a transit agency chooses to make any changes permanent during an emergency, then the transit agency must perform a service equity analysis. The dramatic decline in ridership and the uncertain timing of any recovery signified the need for making the temporary changes permanent. Of note, a permanent change is any change lasting longer than 6 months. The Major Service Changes presented here represent more than a third of TriMet's services changes resulting from the pandemic. The service equity analysis includes Major Service Changes to thirty bus lines from the April and August temporary service changes. Other changes involve route adjustments and span and frequency changes. Though these changes will represent reductions for riders on those lines, they are not large enough to be reviewed as Major Service Changes.

This report documents the equity analysis conducted for these changes.

## II. TriMet Title VI Compliance

As a recipient of Federal Transit Administration ("FTA") financial assistance, TriMet must ensure that service changes – both increases and reductions – 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"). The Circular instructs transit agencies to consider impacts of Major Service Changes on low-income populations as well as minority populations by conducting a service equity analysis. Figure 1 shows the general sequence of steps and considerations in the equity analysis process.

TriMet's Title VI Program<sup>2</sup> outlines the agency's policies, definitions and procedures for complying with Title VI and performing equity analyses. As required by the Circular, this includes the agency's Major Service Change, Disparate Impact, and Disproportionate Burden policies, as set forth below.

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<sup>1</sup> <https://news.trimet.org/2020/03/trimet-to-adjust-schedules-preserve-safety-and-service-as-community-responds-to-covid-19/>

<sup>2</sup> TriMet's Title VI Program was updated and submitted to FTA in fall 2019

## A. Major Service Change Policy

All changes in service meeting the definition of Major Service Change are subject to a Title VI Equity Analysis prior to Board approval of the service change. A Title VI Equity Analysis will be completed for all Major Service Changes and will be presented to the Board for its consideration and included in the subsequent TriMet Title VI Program with a record of action taken by the Board.

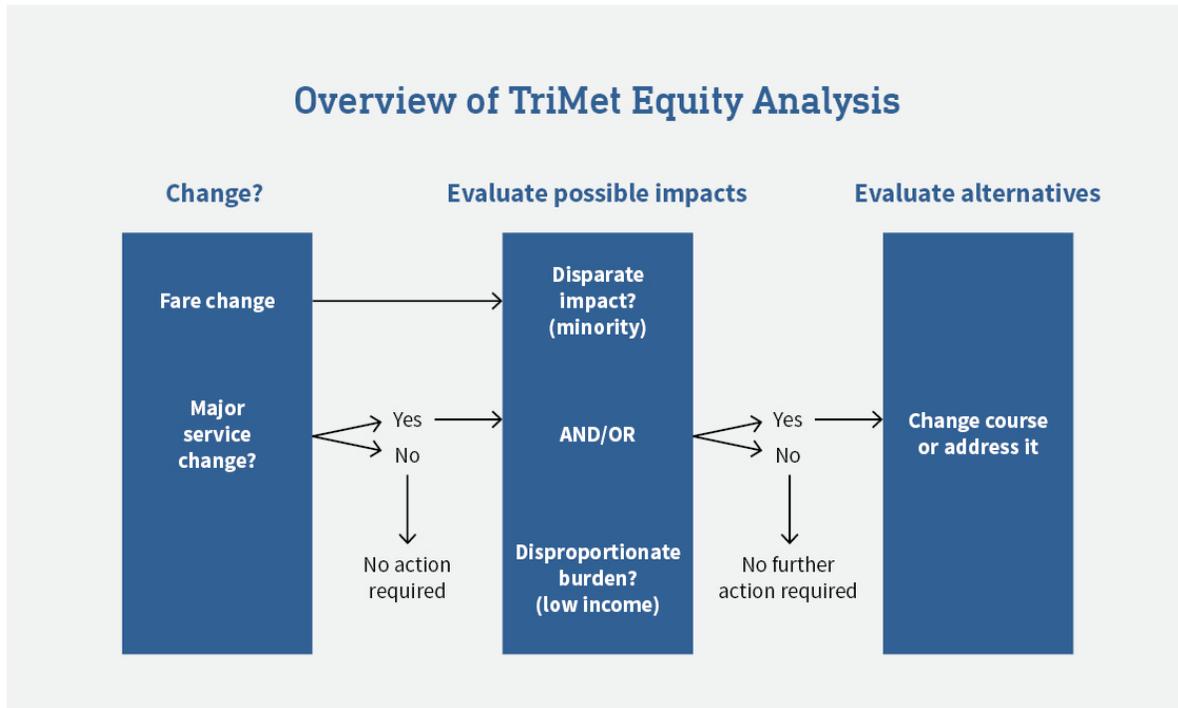


Figure 1: Overview of TriMet's Title VI Equity Analysis process

A **Major Service Change** is defined as:

1. A change to **15% or more of a line's route miles**. This includes routing changes where route miles are neither increased nor reduced (i.e. re-routes), or;
2. A change of **15% or more to a line's span** (hours) of service on a daily basis for the day of the week for which a change is made, or;
3. A change of **15% or more to a line's frequency** of service on a daily basis for the day of the week for which a change is made, or;
4. A single transit line is **split** into two or more transit lines,
5. A transit line is retired or eliminated from service, or;
6. A **new transit line** is established.

A Major Service Change occurs whether the above thresholds are met:

- a) Within a single service proposal, or;
- b) Due to a cumulative effect of routing, span, or frequency changes over the three years prior to the analysis

## B. Disparate Impact Policy

Testing for Disparate Impact 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.

In the course of performing a Title VI Equity Analysis for possible disparate impact, TriMet will analyze how the proposed major service change or fare change action could impact minority populations, as compared to non-minority populations.

In the event the proposed action has an adverse impact that affects protected populations more than other populations at a level that exceeds the benchmarks established in the adopted Disparate Impact Policy, or that restricts the benefits of the service change to protected populations, the finding would be considered as a potential Disparate Impact. Given a potential Disparate Impact, TriMet will evaluate whether there is an alternative that would serve the same objectives and with a more equitable impact. Otherwise, TriMet will take measures to minimize or mitigate the adverse impact of the proposed action.

The Disparate Impact Policy defines measures for determination of potential Disparate Impact on minority populations resulting from Major Service Changes or any change in fares. The policy is applied to both adverse effects and benefits of Major Service Changes. Adverse effects of service changes are defined as:

1. A decrease in the level of transit service (span in days and/or hours, and/or frequency); and/or
2. Decreased access to comparable transit service, which is defined as an increase of the access distance to beyond one-quarter mile of bus stops or one-half mile of rail stations.

The determination of disparate impact associated with service changes is defined separately for impacts of changes on an individual line, and for system-level impacts of changes on more than one line, as well as for both service reductions and service improvements.

1. In the event of potential adverse effects resulting from service reductions:
  - a) A Major Service Change to a *single line* will be considered to have a potential Disparate Impact if the percentage of impacted minority population in the service area of the line exceeds the percentage of minority population of the TriMet District as a whole by at least 3 percentage points (e.g., 33 percent compared to 30 percent).
  - b) To determine the *system-wide* impacts of Major Service Change reductions on more than one line, the percentage of the TriMet district’s minority population that is impacted is compared to the percentage of the TriMet district’s non-minority population that is impacted. If the percentage of the minority population impacted is at least 20 percent

greater than the percentage of the non-minority population impacted (e.g., 12 percent compared to 10 percent), the overall impact of changes will be considered disparate.

2. In the event of service improvements:

- a) A major service change to a *single line* will be considered to have a potential Disparate Impact if:
  - i. The improvement is linked to other service changes that have disproportionate and adverse effects on minority populations, or;
  - ii. The percentage of impacted minority population in the service area of the line is less than the percentage of minority population of the TriMet District as a whole by at least 3 percentage points (e.g., 27 percent compared to 30 percent).
- b) To determine the *system-wide* impacts of major service change improvements on more than one line, the percentage of the TriMet district's minority population that is impacted is compared to the percentage of the TriMet district's non-minority population that is impacted. If the percentage of the minority population impacted is at least 20 percent less than the percentage of the non-minority population impacted (e.g., 8 percent compared to 10 percent), the overall impact of changes will be considered disparate.

3. Additional considerations to complement the quantitative Disparate Impact analysis above may include evaluating impacts to accessing employment, education, food, or health care for minority populations.

Upon determination of Disparate Impact, TriMet will either:

- a) Alter the service proposal to avoid, minimize, or mitigate potential Disparate Impacts, or;
- b) Provide a substantial legitimate justification for keeping the proposal as-is, and show that there are no alternatives that would have a less Disparate Impact on minority riders but would still accomplish the project or program goals.

### C. Disproportionate Burden Policy

Testing for Disproportionate Burden evaluates potential effects on low-income riders or populations, defined as at or below 150% of the federal poverty level. The line and system level evaluations are identical to those used to determine potential Disparate Impacts, but compare low-income and higher income populations rather than minority and non-minority populations.

### III. Covid-19 Service Changes

#### A. Description of Changes

Table 1 lists the temporary service changes made permanent. All of the changes that met the Major Service Change threshold occurred during the late Spring and Fall service reductions.

**Table 1: Service Changes during Covid-19**

Line	Service Change Description
Line 2 - Division	➤ Reduce weekend frequency
Line 4 - Fessenden	➤ Reduce weekend frequency
Line 6 - MLK	➤ Reduce weekend frequency
Line 8 - Jackson Park	➤ Reduce weekend frequency
Line 12 - Barbur/Sandy Blvd	➤ Reduce weekend frequency
Line 14 - Hawthorne	➤ Reduce weekday frequency
Line 18 - Hillside	➤ Reduce weekday frequency ➤ Reduce weekday span
Line 19 - Woodstock/Glisan	➤ Reduce weekday frequency ➤ Reduce weekend frequency ➤ Reduce weekend span
Line 20 - Burnside	➤ Reduce weekday span ➤ Reduce weekend span
Line 22 - Parkrose	➤ Reduce weekend span
Line 24 - Fremont/NW 18th	➤ Reduce weekday frequency
Line 33 - McLoughlin/King Rd	➤ Reduce weekend frequency
Line 35 - Macadam/Greeley	➤ Reduce weekend frequency
Line 39 - Lewis & Clark	➤ Reduce weekday span
Line 45 - Garden Home	➤ Reduce weekend span
Line 46 - North Hillsboro	➤ Reduce weekday span
Line 48 - Baseline	➤ Reduce weekend span
Line 50 - Cedar Mill	➤ Reduce weekday span
Line 52 - Farmington/185th	➤ Reduce weekend frequency ➤ Reduce weekend span

	Line 54 - Beaverton	➤ Reduce weekend frequency
	Line 56 - Scholls Ferry Rd	➤ Reduce weekend frequency
	Line 57 - TV Hwy/Forest Grove	➤ Reduce weekday span ➤ Reduce weekend span
	Line 58 - Canyon Rd	➤ Reduce weekday frequency ➤ Reduce weekend frequency ➤ Reduce weekend span
	Line 63 - Washington Park/Arlington Hts	➤ Reduce weekend span
	Line 67 - Bethany/158th	➤ Reduce weekend frequency
	Line 79 - Clackamas/Oregon City	➤ Reduce weekend frequency
	Line 80 - Kane/Troutdale Rd	➤ Reduce weekday frequency ➤ Reduce weekend frequency ➤ Reduce weekend span
	Line 93 - Tigard/Sherwood	➤ Reduce weekday frequency
	Line 152 - Milwaukie	➤ Reduce weekday frequency
	Line 272 - PDX Night Bus	➤ Retire Line

*Note: The late Spring 2020 and Fall 2020 also includes minor changes to the remaining 54 lines. These changes are not included in this analysis because they are too small to reach the Major Service Change threshold.*

## B. Major Service Change Test

To determine whether individual service changes meet the definition of Major Service Change, current and proposed service are compared in terms of route length, frequency, and span (hours) of service. Changes of 15% or more qualify as Major Service Changes, including changes meeting this threshold cumulatively over the course of three years.

Results of the comparison are shown in Table 2. With the exception of Line 272, all twenty-nine lines met the Major Service Change threshold for either a decrease in frequency or span. The Line 272 was retired from service, which meets the Title VI Major Service Change definition.

**Table 2: Results of Major Service Change Test By Line**

Line	Change in Route Length	Change in Span	Change in Frequency	Line Split	Retired Line	New Line or New Service
Line 2 - Division (Weekend)			-88%			
Line 4 - Fessenden (Weekend)			-95%			
Line 6 - MLK (Weekend)			-74%			
Line 8 - Jackson Park (Weekend)			-89%			
Line 12 - Barbur/Sandy Blvd (Weekend)			-70%			
Line 14 - Hawthorne			-16%			
Line 18 - Hillside		-50%	-30%			
Line 19 - Woodstock/Glisan			-20%			
Line 19 - Woodstock/Glisan (Weekend)		-68%	-23%			
Line 20 - Burnside		-19%				
Line 20 - Burnside (Weekend)		-24%				
Line 22 - Parkrose (Weekend)		-35%				
Line 24 - Fremont/NW 18th			-15%			
Line 33 - McLoughlin/King Rd (Weekend)			-95%			
Line 35 - Macadam/Greeley (Weekend)			-81%			
Line 39 - Lewis & Clark		-41%				
Line 45 - Garden Home (Weekend)		-26%				
Line 46 - North Hillsboro		-38%				

Line 48 - Baseline (Weekend)		-15%				
Line 50 - Cedar Mill		-34%				
Line 52 - Farmington/185th (Weekend)		-15%	-72%			
Line 54 - Beaverton (Weekend)			-93%			
Line 56 - Scholls Ferry Rd (Weekend)			-91%			
Line 57 - TV Hwy/Forest Grove		-16%				
Line 57 - TV Hwy/Forest Grove (Weekend)		-20%				
Line 58 - Canyon Rd		-15%	-17%			
Line 58 - Canyon Rd (Weekend)			-50%			
Line 63 - Washington Park/Arlington Hts (Weekend)		-35%				
Line 67 - Bethany/158th (Weekend)			-104%			
Line 79 - Clackamas/Oregon City			-16%			
Line 80 - Kane/Troutdale Rd		-23%	-17%			
Line 80 - Kane/Troutdale Rd (Weekend)		-15%				
Line 93 - Tigard/Sherwood			-22%			
Line 152 - Milwaukie			-20%			
Line 272 - PDX Night Bus					✓	

## C. Line-level Analyses

Having identified the service changes which meet the definition of Major Service Change, the next step in the analysis is to look at each line individually to determine potential Disparate Impacts (minority populations) and/or Disproportionate Burdens (low-income populations). Both service reductions and service increases are analyzed. For service increases, the analysis examines the extent to which the *benefits* of the improvements are inclusive of minority and low-income populations. The line-level analysis compares minority and low-income populations for the service area of each line proposed for a Major Service Change to the minority and low-income populations of the TriMet District as a whole. The analysis is separated by type of service change being proposed:

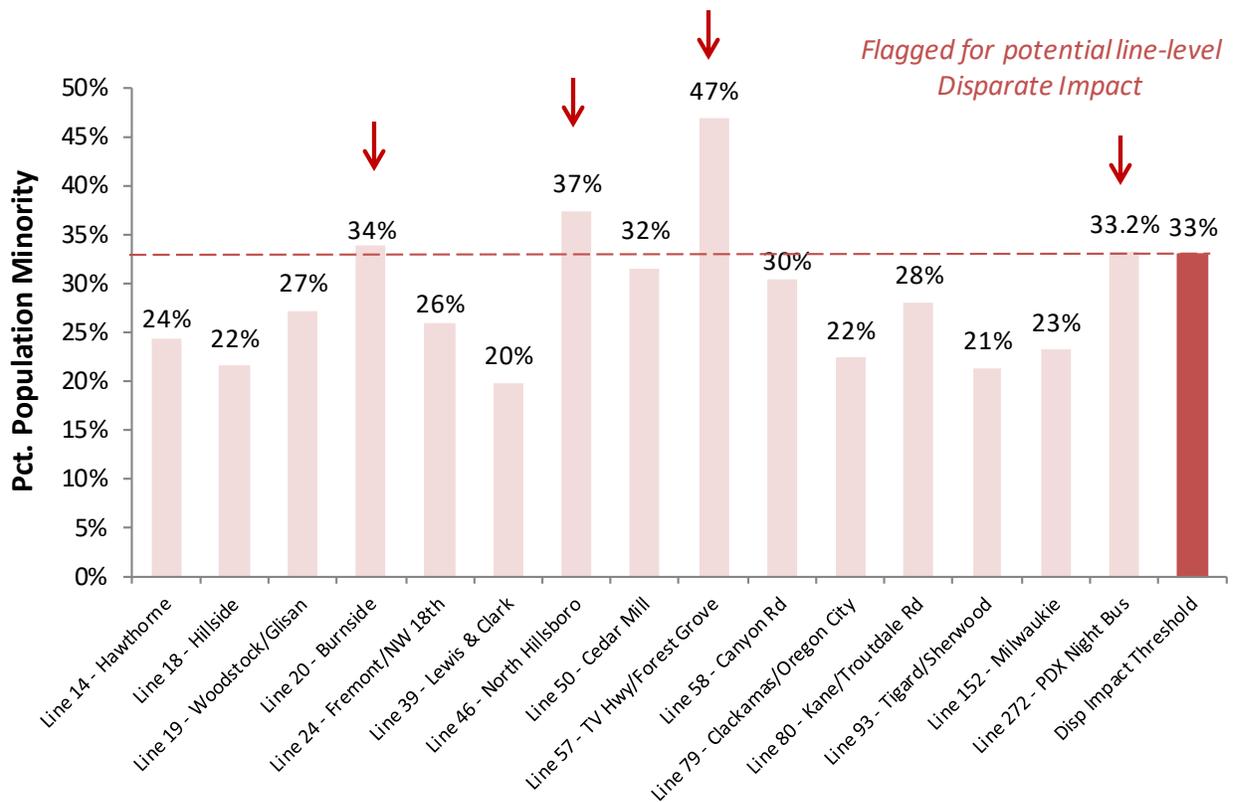
1. Major Service Reduction
2. Major Service Increases
3. Other Major Service Changes

### 1. Major Service Reduction

For service reductions, the analysis examines whether *adverse effects* (defined on pg. 3) are disproportionately borne by minority or low-income populations. If *adverse effects* are identified and a line's minority and/or low-income populations are at least 3 percentage points greater than the minority or low-income populations for the TriMet District as a whole, the proposed change is flagged as a potential Disparate Impact or Disproportionate Burden.

The permanent changes includes thirty Major Service Reductions. Figure 2 and Figure 3 displays the minority population along each line as compared to the 33% Disparate Impact threshold. Figure 4 and Figure 5 displays the low-income population along each line as compared to the 22% Disproportionate Burden threshold. Because these are proposed service decreases, protected populations falling above these thresholds are flagged for potential concerns. The narrative analysis of each individual line follows.

**Figure 2: Minority Population Comparison**  
 Weekday - Lines with Major Service Decreases & Disparate Impact Threshold

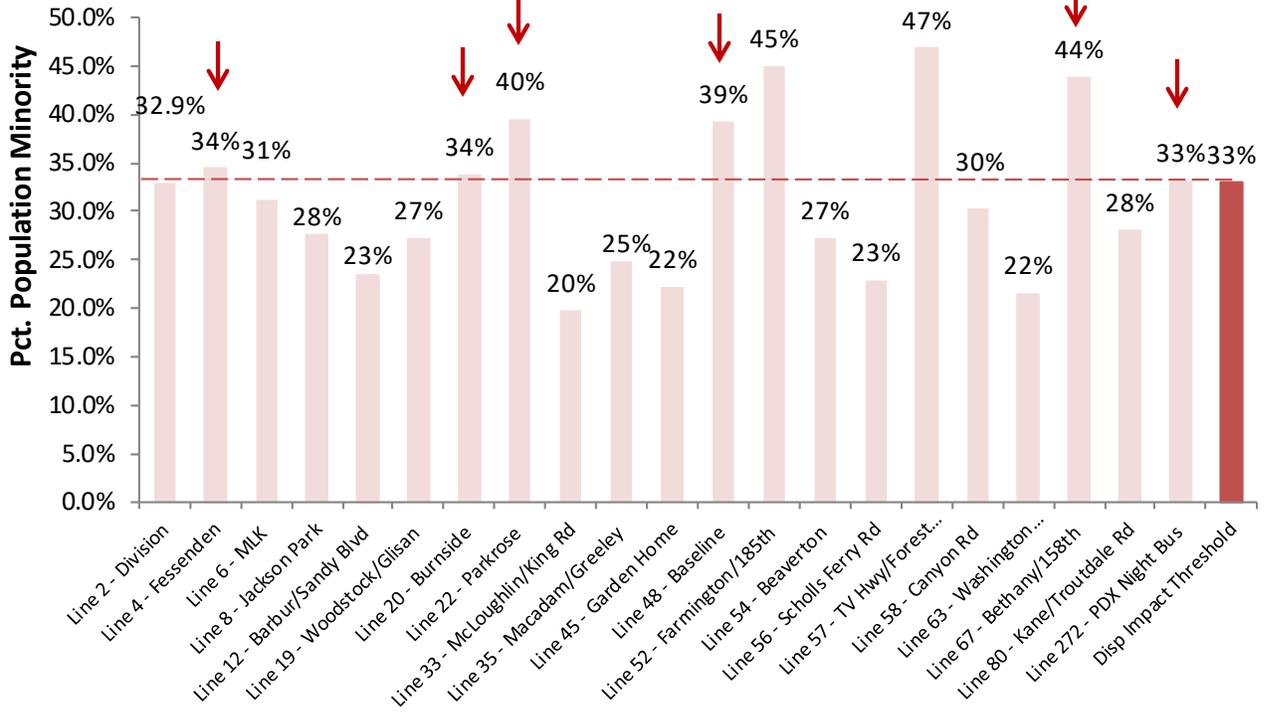


Source: 2014-2018 American Community Survey, block group level

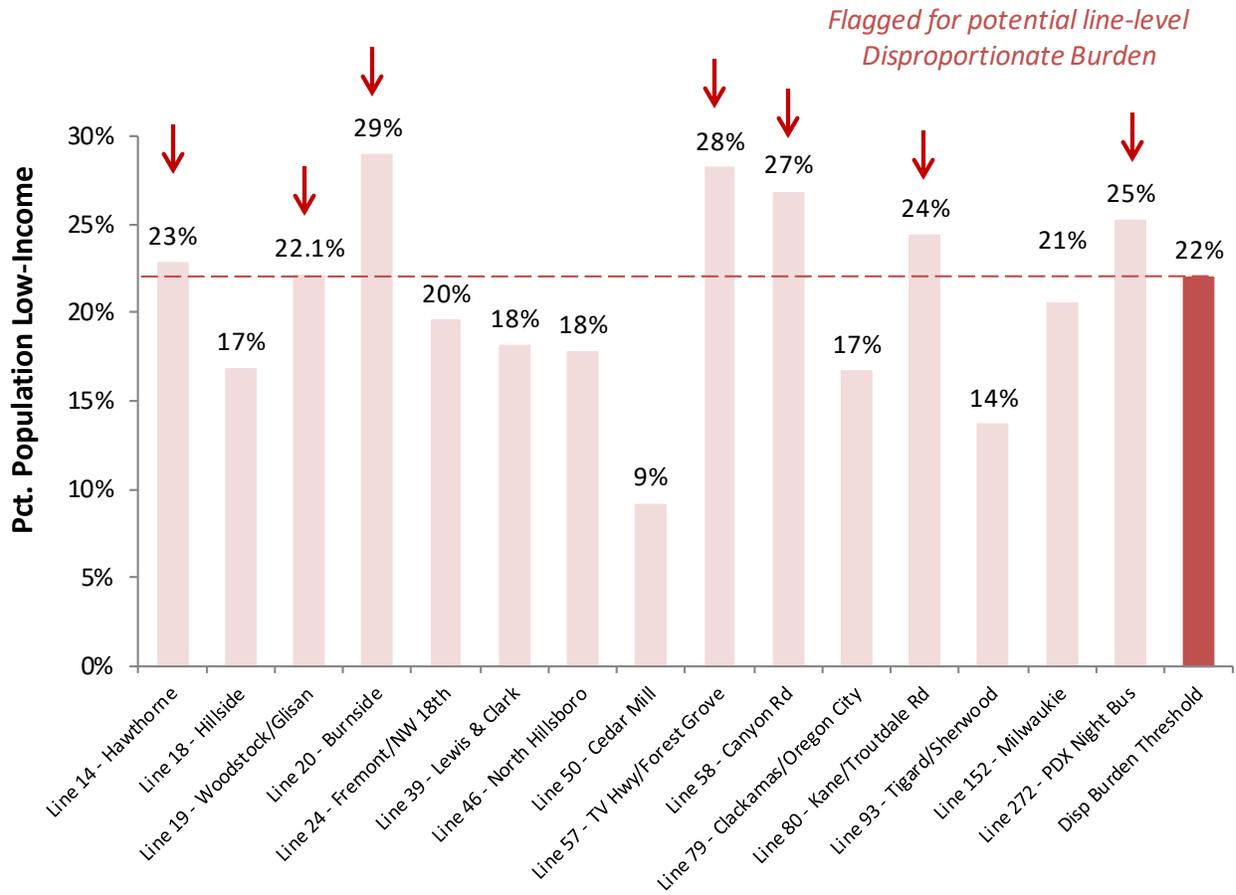
**Figure 3: Minority Population Comparison**

Weekend - Lines with Major Service Decreases & Disparate Impact Threshold

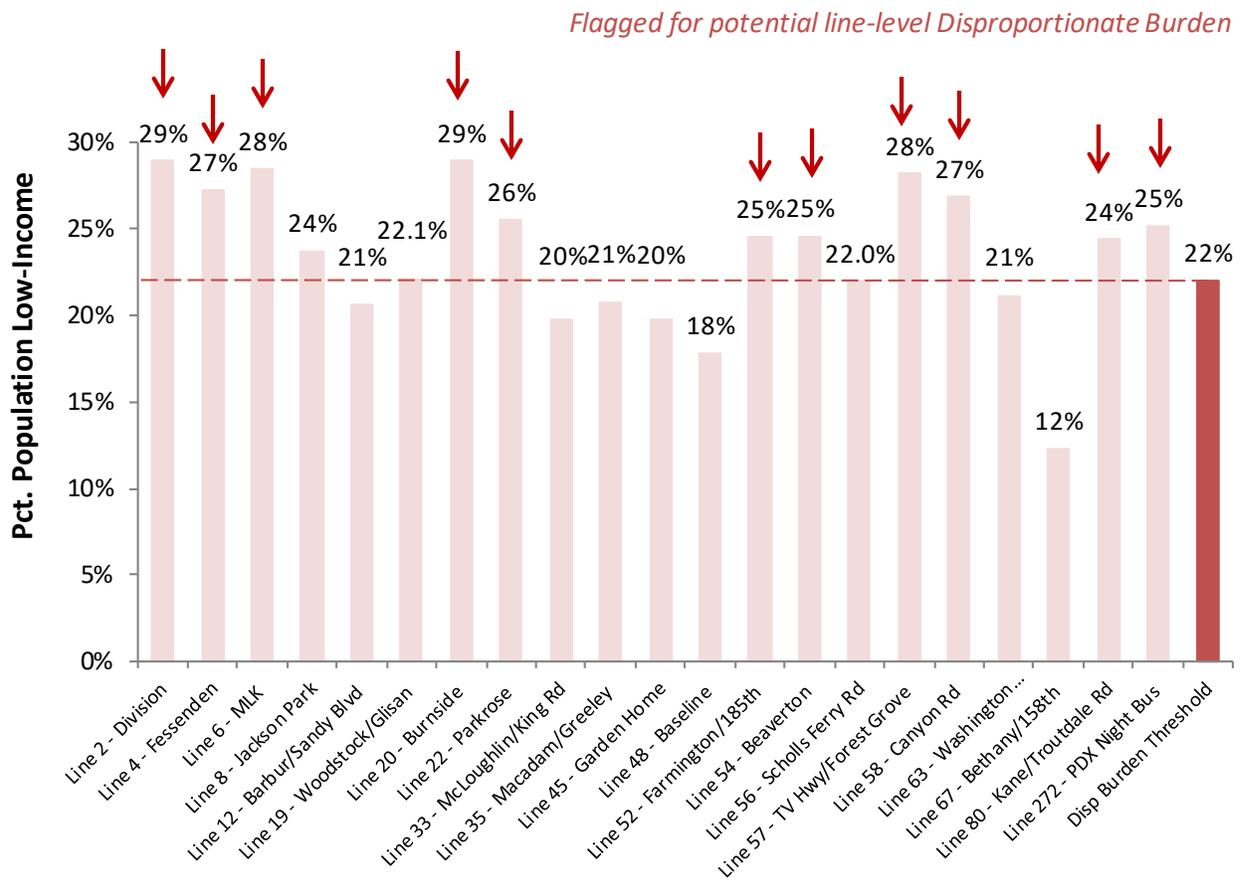
*Flagged for potential line-level Disparate Impact*



**Figure 4: Low-Income Population Comparison**  
 Weekday - Lines with Major Service Decreases & Disproportionate Burden  
 Threshold



**Figure 5: Low-Income Population Comparison**  
 Weekend Lines with Major Service Decreases & Disproportionate Burd. Threshold



➤ **Line 2** (Reduce weekend frequency)

The change for this line would reduce frequency to a service area population that is **32.9% minority**, which is below the Disparate Impact threshold (33%). Thus, there is no **potential Disparate Impact** at the line level. The service area population is 29% low-income, which is above and Disproportionate Burden (22%) threshold for Major Service Decreases. This indicates a **potential Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ **Line 4** (Reduce weekend frequency)

The change for this line would potentially burden a service area population that is 34% minority, 29% low-income, which are both above the Disparate Impact (33%), and Disproportionate Burden (22%) thresholds for Major Service Decreases. This indicates a **potential Disparate Impact and Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ **Line 6** (Reduce weekend frequency)

The change for this line would reduce frequency to a service area population that is **31% minority**, which is below the Disparate Impact threshold (33%). Thus, there is no **potential Disparate Impact** at the line level. The service area population is 29% low-income, which is above and Disproportionate Burden (22%) threshold for Major Service Decreases. This indicates a **potential Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ ***Line 8 (Reduce weekend frequency)***

The change for this line would reduce frequency to a service area population that is **28% minority**, which is below the Disparate Impact threshold (33%). Thus, there is no **potential Disparate Impact** at the line level. The service area population is 24% low-income, which is above and Disproportionate Burden (22%) threshold for Major Service Decreases. This indicates a **potential Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ ***Line 12 (Reduce weekend frequency)***

The change for this line would potentially burden a service area population that is 23% minority, 21% low-income, which are both below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level.**

➤ ***Line 14 (Reduce weekday frequency)***

The change for this line would reduce frequency to a service area population that is **24% minority**, which is below the Disparate Impact threshold (33%). Thus, there is no **potential Disparate Impact** at the line level. The service area population is 23% low-income, which is above and Disproportionate Burden (22%) threshold for Major Service Decreases. This indicates a **potential Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ ***Line 18 (Reduce weekday frequency and span)***

The changes for this line would potentially burden a service area population that is 22% minority, 17% low-income, which are both below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level.**

➤ ***Line 19 (Reduce weekday and weekend frequency and weekend span)***

The changes for this line would potentially burden a service area population that is 22% minority, 17% low-income, which are both below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level.**

➤ ***Line 20 (Reduce weekday and weekend span)***

The changes for this line would potentially burden a service area population that is 34% minority, 29% low-income, which are both above the Disparate Impact (33%), and Disproportionate Burden (22%) thresholds for Major Service Decreases. This indicates a **potential Disparate Impact and Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ **Line 22** (Reduce weekend span)

The change for this line would potentially burden a service area population that is 40% minority, 26% low-income, which are both above the Disparate Impact (33%), and Disproportionate Burden (22%) thresholds for Major Service Decreases. This indicates a **potential Disparate Impact and Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ **Line 24** (Reduce weekday frequency)

The change for this line would potentially burden a service area population that is 26% minority and 20% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level**.

➤ **Line 33** (Reduce weekend frequency)

The change for this line would potentially burden a service area population that is 20% minority and 20% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level**.

➤ **Line 35** (Reduce weekend frequency)

The change for this line would potentially burden a service area population that is 25% minority and 21% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level**.

➤ **Line 39** (Reduce weekday span)

The change for this line would potentially burden a service area population that is 20% minority and 18% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level**.

➤ **Line 45** (Reduce weekend span)

The change for this line would potentially burden a service area population that is 22% minority and 20% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level**.

➤ **Line 46** (Reduce weekday span)

The change for this line would reduce frequency to a service area population that is **38% minority**, which is above the Disparate Impact threshold (33%). This indicates a **potential Disparate Impact**, calling for further examination, in particular the system-level analysis provided in the next section. The service area population is 18% low-income, which is below and Disproportionate Burden (22%) threshold for Major Service Decreases. Thus, there is **no potential Disproportionate Burden at the line level**.

➤ **Line 48** (*Reduce weekend span*)

The change for this line would reduce frequency to a service area population that is **39% minority**, which is above the Disparate Impact threshold (33%). This indicates a **potential Disparate Impact**, calling for further examination, in particular the system-level analysis provided in the next section. The service area population is 18% low-income, which is below and Disproportionate Burden (22%) threshold for Major Service Decreases. Thus, there is no **potential Disproportionate Burden** at the line level.

➤ **Line 50** (*Reduce weekday span*)

The change for this line would potentially burden a service area population that is 32% minority and 9% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level**.

➤ **Line 52** (*Reduce weekend frequency and span*)

The changes for this line would potentially burden a service area population that is 45% minority, 25% low-income, which are both above the Disparate Impact (33%), and Disproportionate Burden (22%) thresholds for Major Service Decreases. This indicates a **potential Disparate Impact and Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ **Line 54** (*Reduce weekend frequency*)

The change for this line would reduce frequency to a service area population that is **28% minority**, which is below the Disparate Impact threshold (33%). Thus, there is no **potential Disparate Impact** at the line level. The service area population is 25% low-income, which is above the Disproportionate Burden (22%) threshold for Major Service Decreases. This indicates a **potential Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ **Line 56** (*Reduce weekend frequency*)

The change for this line would reduce frequency to a service area population that is **23% minority**, which is below the Disparate Impact threshold (33%). Thus, there is no **potential Disparate Impact** at the line level. The service area population is 22% low-income, which is equal to the Disproportionate Burden (22%) threshold for Major Service Decreases. This indicates a **potential Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ **Line 57** (*Reduce weekday and weekend frequency*)

The changes for this line would potentially burden a service area population that is 47% minority, 28% low-income, which are both above the Disparate Impact (33%), and Disproportionate Burden (22%) thresholds for Major Service Decreases. This indicates a **potential Disparate Impact and Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ **Line 58** (*Reduce weekday and weekend frequency and weekday span*)

The changes for this line would reduce frequency to a service area population that is **30% minority**, which is below the Disparate Impact threshold (33%). Thus, there is no **potential Disparate Impact** at the line level. The service area population is 25% low-income, which is above the Disproportionate Burden (22%) threshold for Major Service Decreases. This indicates a **potential Disproportionate Burden**, calling for

further examination, in particular the system-level analysis provided in the next section.

➤ ***Line 63*** (*Reduce weekend span*)

The change for this line would potentially burden a service area population that is 22% minority and 21% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level.**

➤ ***Line 67*** (*Reduce weekend frequency*)

The change for this line would reduce frequency to a service area population that is **44% minority**, which is above the Disparate Impact threshold (33%). This indicates a **potential Disparate Impact**, calling for further examination, in particular the system-level analysis provided in the next section. The service area population is 12% low-income, which is below and Disproportionate Burden (22%) threshold for Major Service Decreases. Thus, there is **no potential Disproportionate Burden** at the line level.

➤ ***Line 79*** (*Reduce weekday frequency*)

The change for this line would potentially burden a service area population that is 22% minority and 17% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level.**

➤ ***Line 80*** (*Reduce weekday and weekend frequency and weekday span*)

The changes for this line would reduce frequency to a service area population that is **29% minority**, which is below the Disparate Impact threshold (33%). Thus, there is **no potential Disparate Impact** at the line level. The service area population is 24% low-income, which is above the Disproportionate Burden (22%) threshold for Major Service Decreases. This indicates a **potential Disproportionate Burden**, calling for further examination, in particular the system-level analysis provided in the next section.

➤ ***Line 93*** (*Reduce weekday frequency*)

The change for this line would potentially burden a service area population that is 29% minority and 14% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level.**

➤ ***Line 152*** (*Reduce weekday frequency*)

The change for this line would potentially burden a service area population that is 23% minority and 21% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is **no Disparate Impact and no Disproportionate Burden at the line-level.**

➤ ***Line 272*** (*Route elimination*)

The retirement of this line would potentially burden a service area population that is 33% minority, which is equal to the Disparate Impact threshold (33%). This indicates a **potential Disparate Impact**, calling for further examination, in particular the system-level analysis provided in the next section. The service area

population is 12% low-income, which is below and Disproportionate Burden (22%) threshold for Major Service Decreases. Thus, there is no **potential Disproportionate Burden** at the line level.

**2. Major Service Increases**

For service increases, the analysis examines the extent to which the *benefits* of the improvements are inclusive of minority and low-income populations. **There are no Major Service Increases.**

**3. Other Major Service Changes**

There are no Other Major Service Changes.

**D. System-level Analysis**

Because more than one line is proposed for a Major Service Change, a system-level analysis is required in addition to the line-level analysis. The system-level analysis aims to measure impacts of all Major Service Changes combined to determine how equitable the impacts would be across racial/ethnic and economic lines. Service increases and service reductions are analyzed separately in order to examine both potential system-level *adverse effects* and distribution of *benefits*.

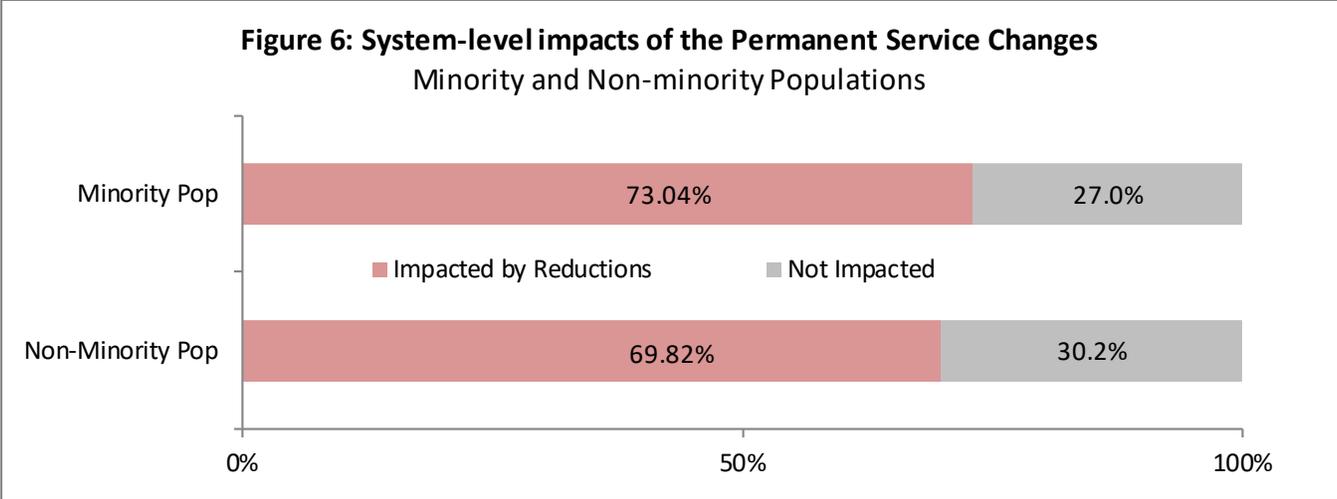
➤ **System-level Disparate Impact Analysis: Major Service Reductions**

The system-level Disparate Impact analysis of Major Service Reductions is completed by determining what proportion of the TriMet District’s minority population is potentially adversely impacted from the service reductions and comparing that to the District’s non-minority population that may be adversely impacted. A potential Disparate Impact would exist if minority populations were impacted substantially more by service reductions than non-minority populations. The way we measure this is to test whether 20% more of the District’s minority than non-minority population were impacted by the service reductions.

Table 3 and Figure 6 compare the impacted minority and non-minority populations. A greater percentage of the District’s minority population is potentially impacted by the proposed Major Service Reductions as compared to the non-minority population (73.0% vs. 69.8%, respectively). Given the 69.8% of non-minorities impacted by the reductions, the percentage of minorities impacted would have to be over 83.8% to meet the definition of a system-level Disparate Impact. Therefore, ***no system-level Disparate Impact is found related to proposed Major Service Reductions.***

**Table 3: System-level Disparate Impact Analysis of Major Service Decreases**

Pct. of TriMet District Non-Minority Pop Negatively Impacted	Minority Pop Disparate Impact Threshold	Pct. of TriMet District Minority Pop Negatively Impacted	Potential Disparate Impact?
69.8%	More than 83.8%	73.0%	No



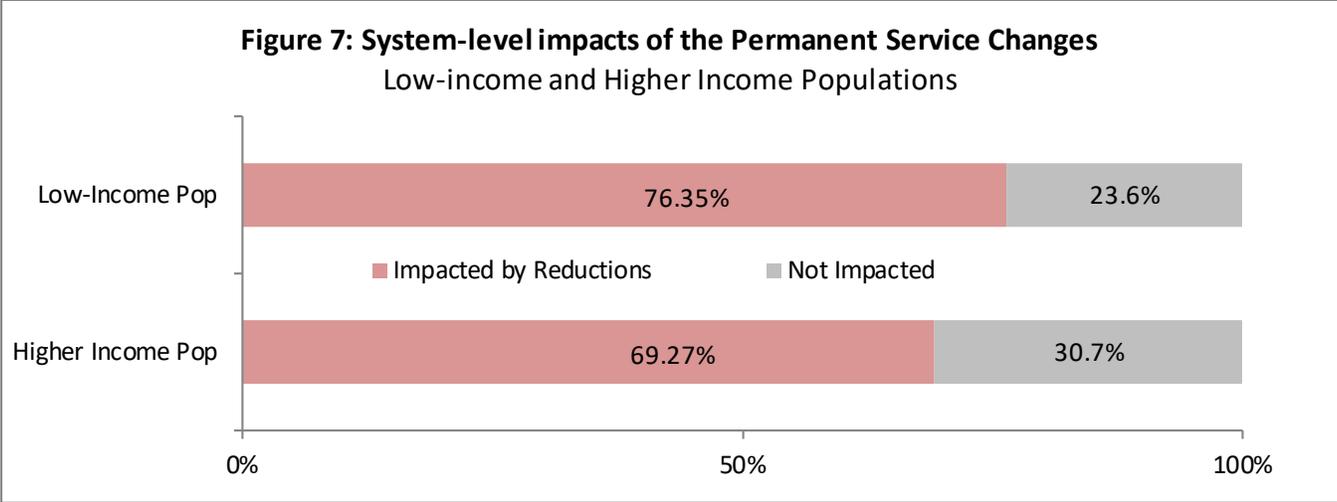
➤ **System-level Disproportionate Burden Analysis: Major Service Reductions**

The system-level Disproportionate Burden analysis is completed by determining what proportion of the TriMet District’s low-income population is potentially adversely impacted from the service reductions and comparing that to the District’s higher income population that may be adversely impacted. “Higher income” includes all persons above the low-income threshold of 150% of the federal poverty level. A potential Disproportionate Burden would exist if low-income populations were impacted substantially more by service reductions than higher income populations. The way we measure this is to test whether 20% more of the District’s low-income than higher income population were impacted by the service reductions.

Table 4 and Figure 7 compare the impacted low-income and higher income populations. A greater percentage of the District’s lower income population is potentially impacted by the proposed Major Service Reductions as compared to the higher income population (76.4% vs. 69.3%, respectively). Given the 69.3% of non-minorities impacted by the reductions, the percentage of low income populations impacted would have to be over 83.1% to meet the definition of a system-level Disparate Impact. Therefore, *no system-level Disproportionate Burden is found related to proposed Major Service Reductions.*

**Table 4: System-level Disproportionate Burden Analysis of Major Service Decreases**

Pct. of TriMet District Higher Income Pop Negatively Impacted	Low-Income Pop Disparate Impact Threshold	Pct. of TriMet District Low Income Pop Negatively Impacted	Potential Disproportionate Burden?
69.3%	More than 83.1%	76.4%	No



#### IV. Community Engagement

TriMet’s traditional outreach and community engagement was not pursued due to the nature of the April 2020 service reductions and the August 2020 service changes. In short, the ability to devise and carry out a robust and inclusive outreach strategy was limited due to a compressed timeline and resource constraints. This was a result of the sharp decline in ridership attributed to the coronavirus pandemic. To summarize the community engagement efforts, all outreach was conducted electronically via media releases, social media (Facebook and Twitter), email blast to our customers and service alerts on the lines where service was reduced. Additionally, the April 5<sup>th</sup> service reductions and Title VI memo surrounding the reductions was presented to the Transit Equity Advisory Committee (TEAC) at the May 12, 2020 meeting.

In general, the TEAC responses were understanding of the service reductions knowing that they were painful-but-necessary adjustments. Moreover, there was a strong sense of support in the overall approach to maintain as much of our essential service network as possible; to focus on equitable service in low-income and minority areas; and to continue to provide critical lifeline service to hospitals and health care facilities, as well as to major employment centers.

Direct customer feedback was collected between March 19, 2020 and November 20, 2020. Staff support was leveraged to garner customer experience analytics during this timeframe. The ability to filter through the myriad of comments provided the opportunity to better understand customer favorability and specific comments pertaining to the service changes. Of note, a majority of comments received through customer service are negative in nature. Thus, the results depicted in Table 5 are not uncommon.

**Table 5: Service Changes Customer Favorability**

April 5 <sup>th</sup> Service Reductions		August 31 <sup>st</sup> Service Restoration	
Opposed	In Favor	Opposed	In Favor
97.05% (n=99)	2.94% (n=3)	90.63% (n=29)	9.37% (n=3)

Comments related to the service changes were also compiled from social media channels to garner additional feedback and sentiments from customers. In effort to communicate the forthcoming changes, TriMet posted blogs on Facebook and Twitter informing riders of the temporary reductions on March 28<sup>th</sup> as well as the restoration of service on July 22<sup>nd</sup>. A total of 110 persons responded with a majority directed at the temporary reductions post. Comments regarding the April 5<sup>th</sup> reductions ranged from concerns of longer wait times due to buses running less frequently as well as having to change their commute schedule due to reduced hours. There were also specific comments requesting pre-Covid service levels be brought back to bus routes 20, 33, 57, 74, and 77. Comments pertaining to the August 31<sup>st</sup> restorations were mainly positive and there was a common theme of gratitude for TriMet's efforts to make the transit system safe and as responsive as possible. Aside from the positive affirmations, several comments requested the restoration of service to bus routes 10, 19, 20, 57, and 72.

The Title VI Service Equity Analysis for the Covid-19 Service Changes was presented to TEAC on January 12, 2021. There were no additional feedback received from what was noted during the late spring 2020 TEAC presentation. Finally, TriMet held a public hearing at its January 27, 2021 board meeting to receive comments on the proposed permanent service changes.

## V. Summary of Findings

### Disparate Impact

As Table 6 summarizes, there are potential disparate impacts with the service reductions resulting from the Covid-19 Service Changes. The changes will reduce service to eight lines that serve low to moderately high minority populations. However, reducing service on these lines does not raise concerns of an inequitable distribution of burdens given: a) the results of the system-level analysis, and b) that the other twenty-two lines did not have any line-level Disparate Impacts.

### Disproportionate Burden

As Table 6 summarizes, there are potential disproportionate burdens with the service reductions resulting from the Covid-19 Service Changes. The changes will reduce service to fourteen lines that serve low to moderately high low-income populations. However, reducing service on these lines does not raise concerns of an inequitable distribution of burdens given: a) the results of the system-level analysis, and b) that the other sixteen lines did not have any line-level Disproportionate Burdens.

## VI. Further Assessment

In accordance with the Disparate Impact and Disproportionate Burden policies, the results of the service equity analysis does not require a modification of the proposed changes. However, to better understand the extent of the potential issues identified, staff conducted an assessment in response to the line-level findings as well as to help inform planning for future service changes.

- 1) Planning staff used a list of bus lines with high minority and/or low-income populations based on the demographics within a ¼ mile of each bus line to determine where underserved communities are located. This method used a composite minority/low income score. However, the Title VI service equity analysis looks

at each line individually to determine potential Disparate Impacts (minority populations) and/or Disproportionate Burdens (low-income populations). As a result, the composite score did not match the Title VI analysis at the line level.

2) Planning staff primarily avoided reductions on minority and low income lines for weekday service. However, staff wasn't as surgical for weekend service. This was necessary, as other priorities informing the service changes were to maintain as much of our essential service network as possible, to continue to provide critical lifeline service to hospitals and health care facilities, as well as to major employment centers.

**Table 6: Summary of Disparate Impact and Disproportionate Burden Analysis Results**

	Potential Disparate Impact?	Potential Disproportionate Burden?
2 - Division	No	Yes
4 - Fessenden	Yes	Yes
6 - MLK	No	Yes
8 - Jackson Park	No	Yes
12 - Barbur/Sandy Blvd	No	No
14 - Hawthorne	No	Yes
18 - Hillside	No	No
19 - Woodstock/Glisan	No	Yes
20 - Burnside	Yes	Yes
22 - Parkrose	Yes	Yes
24 - Fremont/NW 18th	No	No
33 - McLoughlin/King Rd	No	No
35 - Macadam/Greeley	No	No
39 - Lewis & Clark	No	No
45 - Garden Home	No	No
46 - North Hillsboro	Yes	No
48 - Baseline	Yes	No
50 - Cedar Mill	No	No
52 - Farmington/185th	Yes	Yes
54 - Beaverton	No	Yes

**Major Service Reductions**

	56 - Scholls Ferry Rd	No	No
	57 - TV Hwy/Forest Grove	Yes	Yes
	58 - Canyon Rd	No	Yes
	63 - Washington Park/Arlington Hts	No	No
	67 - Bethany/158th	Yes	No
	79 - Clackamas/Oregon City	No	No
	80 - Kane/Troutdale Rd	No	Yes
	93 - Tigard/Sherwood	No	No
	152 - Milwaukie	No	No
	272 - PDX Night Bus	Yes	Yes
	<b>Combined Reductions (System-level)</b>	No	No
<b>Major Service Increases</b>		-	-
<b>Other Major Service Changes</b>		-	-