Title VI Service Equity Analysis: FY2020 Annual Service Plan
Department of Transit Equity, Inclusion, and Community Affairs
April 25, 2019
Executive Summary

TriMet is proposing to implement several service improvements in fall 2019 and spring 2020. In accordance with Title VI of the Civil Rights Act of 1964 and FTA Circular 4702.1B, TriMet conducts an Equity Analysis any time Major Service Changes are proposed to ensure that changes do not unfairly impact people of color and low-income populations. The service proposal includes Major Service Changes to nine bus lines. 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 both the individual line-level and system-level, and the analysis seeks to identify any potential disparities based on race/ethnicity or income.

Major Service Changes

The proposed changes to nine existing lines meet TriMet’s established thresholds for Major Service Changes:

- Line 19 – Woodstock/Glisan
- Line 22 – Parkrose
- Line 23 – San Rafael
- Line 25 – Glisan/Rockwood
- Line 30 – Estacada
- Line 32 – Oatfield Rd.
- Line 74 – 162nd Avenue
- Line 76 – Beaverton/Tualatin
- Line 78 – Beaverton/Lake Oswego

Findings

1. **No system level disparate impact or disproportionate burden** for the 8 major service increases.

2. The vast majority of improvements are on lines with **average-or-above minority populations** in their service areas. As a result, a greater share of the region’s minority populations stand to **benefit** as compared to higher income populations.

3. All of improvements are on lines with **average-or-above low-income populations** in their service areas. As a result, a greater share of the region’s low-income populations stand to **benefit** as compared to higher income populations.
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Attachment A: Analysis of impact on access to employment, education, health care, and food for minority and low-income populations
I. Background

Building upon several years of ongoing service improvements, TriMet’s Annual Service Plan for FY2020\(^1\) proposes Major Service Changes to nine bus lines. Other changes will involve route changes to improve reliability, travel time, and improvements to on-time performance for lines. Though these changes will represent improvements for riders on those lines, they are not large enough changes to be reviewed as Major Service Changes. The Major Service Changes presented here represent the large majority of TriMet’s proposed changes for FY20. The TriMet Board’s approval of a ten-year payroll and self-employment tax rate increase in 2015 makes the changes possible.

TriMet has engaged the community for the past few years to develop a shared vision for future transit service that will guide how the additional revenue is invested. Each year, TriMet staff will use information developed from the shared vision planning efforts and outreach, updated analyses and measures, and additional outreach to prioritize incremental service improvements for that year. The efforts will focus on five factors defined by the TriMet Board: demand, productivity, connections, equity, and growth. Each year’s plan will also consider safety, budget availability, and availability of staff and equipment to provide for expanded service.

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\(^2\) 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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\(^1\) Fiscal year 2020 runs from July 1, 2019 to June 30, 2020.

\(^2\) TriMet’s Title VI Program was updated and submitted to FTA in fall 2016.
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.

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, or;

5. 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.

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

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<table>
<thead>
<tr>
<th>Change?</th>
<th>Evaluate Possible Impacts</th>
<th>Evaluate Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fare Change</td>
<td>Disparate impact? (minority)</td>
<td>Change course or mitigate</td>
</tr>
<tr>
<td><strong>Major Service Change?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>No action required</td>
<td>Disproportionate burden? (low income)</td>
<td>No further action required</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
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., 31 percent compared to 28 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., 25 percent compared to 28 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. Proposed Service Changes

   A. Description of Changes

   Table 1 lists the proposed service changes by the quarter in which they would take effect. All changes proposed for the next year are service increases.
Table 1: Proposed Service Changes in FY20 Annual Service Plan

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Line</th>
<th>Service Change Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2019</td>
<td>22 - Parkrose</td>
<td>▶ Increase weekday frequency</td>
</tr>
<tr>
<td></td>
<td>23 - San Rafael</td>
<td>▶ Increase weekday frequency</td>
</tr>
<tr>
<td></td>
<td>25 - Glisan/Rockwood</td>
<td>▶ Increase weekday frequency</td>
</tr>
<tr>
<td>Fall 2019</td>
<td>19 – Woodstock/Glisan</td>
<td>▶ Route change</td>
</tr>
<tr>
<td></td>
<td>30 - Estacada</td>
<td>▶ Add Sunday service</td>
</tr>
<tr>
<td></td>
<td>32 - Oatfield Rd.</td>
<td>▶ Add Sunday service</td>
</tr>
</tbody>
</table>
| Spring 2020| 74 - 162nd Ave. | ▶ Add weekday peak service  
                  ▶ Add later trips during the weekday  
                  ▶ Add weekend service                             |
|            | 76 - Beaverton/Tualatin | ▶ Increase weekday midday frequency  
                  ▶ Increase weekend frequency                           |
|            | 78 – Beaverton/Lake Oswego | ▶ Take over for Line 42-Denney/Hall                            |

Note: The FY20 Annual Service Plan also includes some minor changes to several bus lines (20 and 70) for addressing reliability and capacity issues. 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. To summarize, these changes meet TriMet’s adopted Title VI Major Service Change definition:

- **Line 19 – Woodstock/Glisan**: Re-route
- **Line 22 – Parkrose**: Frequency increase of over 15% on weekdays
- **Line 23 – San Rafael**: Frequency increase of over 15% on weekdays
- **Line 25 – Glisan/Rockwood**: Frequency increase of over 15% on weekdays
- **Line 30 – Estacada**: New Sunday service
- **Line 32 – Oatfield Road**: New Sunday service
- **Line 74 – 162nd Avenue**: Frequency increase over 15% on weekdays: New weekend service
- **Line 76 – Beaverton/Tualatin**: Frequency increase over 15% on weekdays
- **Line 78 – Beaverton/Lake Oswego**: Re-route
Table 2: Results of Major Service Change Test By Line

<table>
<thead>
<tr>
<th>Line</th>
<th>Change in Route Length</th>
<th>Change in Span</th>
<th>Change in Frequency</th>
<th>Line Split</th>
<th>New Line or New Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line 19 - Woodstock/Glisan</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line 22 - Parkrose (Weekday)</td>
<td></td>
<td></td>
<td>+30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line 23 - San Rafael (Weekday)</td>
<td></td>
<td></td>
<td>+28%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line 25 - Glisan/Rockwood (Weekday)</td>
<td></td>
<td></td>
<td>+35%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line 30 - Estacada (Sunday)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Line 32 - Oatfield (Sunday)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Line 74 - 162nd Ave</td>
<td></td>
<td></td>
<td>+91%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line 74 - 162nd Ave (Saturday)</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Line 74 - 162nd Ave (Sunday)</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Line 76 - Beaverton/Tualatin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line 78 - Beaverton/Lake Oswego*</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Proposed routing change includes taking over for Line 42 between Beaverton Transit Center and Tigard Transit Center and then returns to its current route to Lake Oswego Transit Center. This results in earlier/later weekday service and weekend service on Denney Rd. and Hall Blvd. Change name to 78 Denney/Kerr Pkwy.

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**

There are no Major Service Reductions in this service plan proposal.

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.

Figure 4 displays the minority population along each line proposed for a major increase as compared to the 26% Disparate Impact threshold. Figure 5 displays the low-income population along each line as compared to the 19% Disproportionate Burden threshold. Because these are proposed service increases, protected populations *falling below* these thresholds are flagged for potential concerns. The narrative analysis of each individual line follows, which includes further considerations of access to jobs, education, health care, and food for minority and low-income populations.

![Figure 4: Minority Population Comparison](source: 2012-2016 American Community Survey, block group level)
**Figure 5: Low-income Population Comparison**

Lines with proposed Major Service Increases & Disproportionate Burden Threshold

![Chart showing low-income population comparison](chart.png)

Source: 2012-2016 American Community Survey, block group level. Low-income defined as at or below 150% federal poverty level.

- **Line 22 – Parkrose** *(Weekday frequency increase)*
  
  This service increase would potentially benefit a service area population that is **42% minority** and **31% low-income**, which are at or above the Disparate Impact and Disproportionate Burden thresholds for Major Service Increases. Thus, there is **no Disparate Impact** and **Disproportionate Burden** at the line level.

  In terms of access, the frequency increase would **improve service** to:
  - About 42,303 jobs
    - 57% are low-to-medium wage jobs, which is above the TriMet district average
    - 14% are jobs held by minorities, which is above the TriMet district average
    - 8% are jobs held by Hisp./Latino workers, which is similar to the TriMet district average
  - 1 community college, 1 high school, 1 middle school, and 1 educational center
  - 1 grocery stores/supermarkets
  - 2 human and social services centers

- **Line 23 – Rafael** *(Weekday frequency increase)*

  This service increase would potentially benefit a service area population that is **39% minority** and **30% low-income**, which are above the Disparate Impact and Disproportionate Burden thresholds for Major Service Increases. Thus, there is **no Disparate Impact** and **Disproportionate Burden** at the line level.

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3 Access defined as within ¼ mile of a stop on the line. For full details of access to services by line, see Attachment A.
In terms of access, the frequency increase would improve service to:

- About 47,429 jobs
  - 56% are low-to-medium wage jobs, which is above the TriMet district average
  - 15% are jobs held by minorities, which is above the TriMet district average
  - 8% are jobs held by Hisp./Latino workers, which is similar to the TriMet district average
- 1 educational center
- 5 grocery stores/supermarkets, including 1 international grocer
- 2 human and social services centers

- Line 25 – Gilsan/Rockwood (Weekday frequency increase)
  This service increase would potentially benefit a service area population that is 49% minority and 40% low-income, which are well above the Disparate Impact and Disproportionate Burden thresholds for Major Service Increases. Thus, there is no Disparate Impact and Disproportionate Burden at the line level.

In terms of access, the frequency increase would improve service to:

- About 12,495 jobs
  - 68% are low-to-medium wage jobs, which is well above the TriMet district average
  - 13% are jobs held by minorities, which is slightly above the TriMet district average
  - 9% are jobs held by Hisp./Latino workers, which is above the TriMet district average
- 2 educational centers
- 9 grocery stores/supermarkets, including 1 Hispanic grocer
- 10 human and social services centers

- Line 30 – Estacada (New Sunday service)
  This service increase would potentially benefit a service area population that is 21% minority, which is below the Disparate Impact threshold (26%) for Major Service Increases. This indicates a potential Disparate Impact, calling for further examination, in particular the considerations below as well as the system-level analysis provided in the next section. The service area population is 21% low-income, which is above the Disproportionate Burden threshold (19%) for Major Service Increases. Thus, there is no Disproportionate Burden at the line-level.

In terms of access, this added service would improve service to:

- About 136,897 jobs
  - 48% are low-to-medium wage jobs, which is less than the TriMet district average
  - 12% are jobs held by people of color, which is below the TriMet district average
  - 7% are jobs held by Hispanic/Latino workers, which is slightly less than the TriMet district average
- 3 middle schools, 3 high school, and 2 community colleges
- 4 community health care service centers
- 1 grocery store
- **Line 32 – Oatfield** (New Sunday service)
  This service increase would potentially benefit a service area population that is **16% minority**, which is below the Disparate Impact threshold (26%) for Major Service Increases. This indicates a **potential Disparate Impact**, calling for further examination, in particular the considerations below as well as the system-level analysis provided in the next section. The service area population is **19% low-income**, which is equal to the Disproportionate Burden threshold (19%) for Major Service Increases. Thus, there is **no Disproportionate Burden** at the line-level.

  In terms of access, this added service would **improve service** to:
  - Over 43,889 jobs
    - 60% are low-to-medium wage jobs, which is greater than the TriMet district average
    - 9% are jobs held by minorities, which is slightly greater than the TriMet district average
    - 8% are jobs held by Hisp./Latino workers, which is similar to the TriMet district average
  - 2 middle schools, 3 high schools, 1 community college, and 1 academy of the arts
  - 3 employment resource center
  - 9 human and social services centers
  - 11 grocery stores/supermarkets

- **Line 74 – 162nd Ave** (Weekday frequency increase and new weekend service)
  This service increase would potentially benefit a service area population that is **40% minority** and **33% low-income**, which are well above the Disparate Impact and Disproportionate Burden thresholds for Major Service Increases. Thus, there is **no Disparate Impact** and **Disproportionate Burden** at the line level.

  In terms of access, the frequency increase would **improve service** to:
  - About 43,840 jobs
    - 39% are low-to-medium wage jobs, which is less than the TriMet district average
    - 14% are jobs held by minorities, which is less than the TriMet district average
    - 5% are jobs held by Hisp/Latino workers, which is less than the TriMet district average
  - 1 middle and high school
  - 5 human and social services centers
  - 6 grocery stores/supermarkets

- **Line 76 – Beaverton/Tualatin** (Weekday and weekend frequency increase)
  This service increase would potentially benefit a service area population that is **32% minority** and **25% low-income**, which are above the Disparate Impact and Disproportionate Burden thresholds for Major Service Increases. Thus, there is **no Disparate Impact** and **Disproportionate Burden** at the line level.

  The frequency increase would **improve service** to:
  - Over 101,699 jobs
    - 56% are low-to-medium wage jobs, which is greater than the TriMet district average
    - 12% are jobs held by minorities, which is less than the TriMet district average
    - 9% are jobs held by Hisp./Latino workers, which is above the TriMet district average
• 2 high schools
• 4 grocery stores/supermarkets
• 7 human and social services centers
• 4 employment resource centers

➤ Line 78 – Beaverton/Lake Oswego (Route change)
The proposed route change will take over for Line 42 (Denney/Hall) adding new weekend service and span improvements for Line 42 riders. This service increase to the Denney/Hall portion would potentially benefit a service area population that is 33% minority and 26% low-income, which are above the Disparate Impact and Disproportionate Burden thresholds for Major Service Increases. Thus, there is no Disparate Impact and Disproportionate Burden at the line level.

In terms of access, the route change would improve service to:
• About 25,523 jobs
  o 63% are low-to-medium wage jobs, which is above the TriMet district average
  o 13% are jobs held by minorities, which is less than the TriMet district average
  o 9% are jobs held by Hispanic/Latino workers, which is above the TriMet district average
• 1 middle school, 1 high school, and 1 youth program center
• 1 grocery stores/supermarket
• 1 human and social services center

3. Other Major Service Changes
One of the proposed changes, while qualifying as a Major Service Change, does not necessarily increase or reduce service. Evaluating potential distribution of adverse effects or benefits of the changes is not applicable, and therefore there is no potential Disparate Impact and no potential Disproportionate Burden under TriMet’s Title VI policies. Even so, TriMet still analyzed the details of the proposed changes for potential equity impacts.

➤ Line 19 (Route streamlining, including service removal and one stop removal)
The Line 19 route change would improve reliability by avoiding the congested curves on SW Sheridan Street. The change will serve SW Lincoln St. and SW 1st St. between the Transit Mall (SW 5th/6th avenues) and SW 1st & Arthur St. Doing so would remove service from a total of 4 stops, including both directions of service. The population in the surrounding area is 27% minority and 28% low-income.

A subsequent test for adverse effect is carried out for coverage removed. All four of these stops (which serve 224 daily ons/offs) have comparable service within ¼ mile. Thus, the coverage removed from this route does not meet the definition of an adverse effect (see Table 3). In terms of service and access, this route change would neither add nor remove service. Therefore, the availability of transit service and access to existing jobs (i.e., low-to-medium wage jobs, jobs held by people of color and jobs held by Hispanic/Latino workers) will be maintained.
### 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 Increases**

  The system-level Disparate Impact analysis of Major Service Increases is completed by determining what portion of the TriMet District’s minority population stands to benefit from the Major Service Change improvements, and comparing that to the portion of the District’s non-minority population that potentially benefits. A potential Disparate Impact would exist if minority populations benefitted substantially less than non-minority populations. The way we measure this is to test whether 20% less (or 4/5) of the District’s minority than non-minority population stood to benefit from the improvements.

  Table 4 and Figure 12 compare the positively impacted minority and non-minority populations. A greater percentage of the District’s minority population stands to benefit by the proposed Major Service Increase compared to the non-minority population (21.6% vs. 17.3%, respectively). Therefore, no System-level Disparate Impact is found related to the proposed Major Service Increases.

### Table 3: Stops and populations impacted by routing changes to Line 19

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Removed</td>
<td>4</td>
<td>224</td>
<td>27%</td>
<td>28%</td>
</tr>
<tr>
<td>Nearest comparable service</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Less than ¼ mile</td>
<td></td>
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</tr>
<tr>
<td>Over ¼ mile*</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
</tbody>
</table>

*Adverse effect applies

### Table 4: System-level Disparate Impact Analysis of Major Service Increases

<table>
<thead>
<tr>
<th>Pct. of TriMet District Non-Minority Pop Positively Impacted</th>
<th>Minority Pop Disparate Impact Threshold</th>
<th>Pct. of TriMet District Minority Pop Positively Impacted</th>
<th>Potential Disparate Impact?</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.3%</td>
<td>Less than 14%</td>
<td>21.6%</td>
<td>No</td>
</tr>
</tbody>
</table>
System-level Disproportionate Burden Analysis: Major Service Increases

The System-level Disproportionate Burden analysis is completed by determining what proportion of the TriMet District’s low-income population is positively impacted by the Major Service Increases, and comparing that to the District’s higher income population that is positively 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 benefitted substantially less than higher income populations. The way we measure this is to test whether 20% less (or 4/5) of the District’s low-income than higher income population stands to benefit from the improvements.

Table 6 and Figure 14 compare the impacted low-income and higher income populations. A greater percentage of the District’s low-income population stands to benefit from the proposed Major Service Increases as compared to the higher income population (23.9% vs. 17%, respectively). Therefore, no System-level Disproportionate Burden is found related to the proposed Major Service Increases.

<table>
<thead>
<tr>
<th>Table 6: System-level Disproportionate Burden Analysis of Major Service Increases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of TriMet District Higher Income Pop Positively Impacted</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>17.0%</td>
</tr>
</tbody>
</table>
IV. Community Engagement

The service proposals analyzed in this report stem from a multi-year planning and outreach process to develop a vision for future transit service in the Portland metropolitan region. Divided by sub-region of the TriMet service district, these “Service Enhancement Plans” were undertaken to identify and prioritize opportunities to improve bus service as well as pedestrian and bike access to transit, given current and projected population and job growth. These are long-range plans which include dozens of bus service improvements beyond those proposed for implementation over the next year.4

An initial FY20 service plan was developed in fall 2018, at which point TriMet posted the proposed changes on trimet.org to solicit feedback, placed advertisements in newspapers across the service district, conducted on-board outreach and sent postcards to nearby residents of lines with proposed routing changes, presented the proposal to the Transit Equity Advisory Committee, sent emails to riders and other stakeholders, and staff held seven TriMet Open Houses. TriMet contracted with the Immigrant & Refugee Community Organization (IRCO) to design, promote, and help run the open house meetings. Open house attendees received HOP cards, while IRCO provided food, interpretation services, and daycare upon request. There were no modifications requested through the feedback and a majority of the comments were in support of the FY20 service proposal.

For the second phase of outreach, the updated plan was posted to trimet.org and many elements of the initial outreach phase were repeated (postcards, newspaper advertisements, emails). TriMet held three open houses on February 26, 2019 in East Portland/Gresham, February 27, 2019 in Beaverton, and February 28 in Downtown Portland to solicit feedback about the updated proposal. Finally, TriMet held a public hearing at its March 27, 2019 board meeting to receive comments on the proposed service changes.

4 For more information, go to https://trimet.org/betterbus/serviceimprovements-fy20
Responses overall were positive about the proposal. The following is a summary of themes across the feedback received:

Increasing the number of Frequent Service Lines is very popular among our customer base. Riders were especially pleased to learn about Line 20-Burnside/Stark becoming a Frequent Service Line. Additionally, riders were excited to learn that the upgrading of Line 76-Beaverton/Tualatin to Frequent Service will allow for Line 78-Beaverton/Lake Oswego to take over for Line 42-Denney/Hall, providing late night weekday and new weekend bus service to Vose and Metzger areas of Beaverton and Tigard.

Riders also supported the new Sunday service on Lines 30-Estacada and 32-Oatfield as well as the speed and reliability improvements that will come with the route change to Line 19-Woodstock/Gilsan. East Portland riders were happy to learn about later weekday service and new weekend service on Line 74-162nd Ave. Finally, riders were also especially appreciative of the new weekend service in the Vose and Metzger communities afforded by the Line 78-Beaverton/Lake Oswego route change, allowing them more opportunities for traveling to and from work.

V. Summary of Findings

Table 7 on the next page summarizes the results of the line-level and system-level Disparate Impact and Disproportionate Burden analyses. As shown, Title VI concerns are minimal with the proposed FY20 Annual Service Plan. The proposal promises to improve service significantly for minority and low-income populations, with only two improvements (to the Lines 30 and 32) serving areas with relatively low minority populations as compared to the TriMet district. However, improving service on these lines does not raise concerns of an inequitable distribution of benefits given: a) the results of the system-level analysis; b) that the other 7 lines proposed for improvements did not have any line-level Disparate Impacts; and c) the 9 lines proposed for improvements did not have any line-level Disproportionate Burdens.
### Table 7: Summary of Disparate Impact and Disproportionate Burden Analysis Results

<table>
<thead>
<tr>
<th>Major Service Reduction</th>
<th>Potential Disparate Impact?</th>
<th>Potential Disproportionate Burden?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Major Service Increases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 - Parkrose</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>23 - San Rafael</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>25 - Glisan/Rockwood</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>30 - Estacada</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>32 - Oatfield</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>74 - 162nd Avenue</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>76 - Beaverton/Tualatin</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>78 - Beaverton/Lake Oswego</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Combined Improvements (System-level)</strong></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Other Major Service Changes</td>
<td>19 - Woodstock/Glisan</td>
<td>No</td>
</tr>
</tbody>
</table>
Attachment A: Analysis of impact on access to employment, education, health care, and food for minority and low-income populations
### Line 22 – Parkrose

**Added frequency on Weekdays**

- Creates new access
- ✓ Improves access
- □ Removes access
- □ Reduces access

#### Employment

- Improves access to an estimated **42,303 jobs**
  - Low/Medium Wage Jobs*: 57% 53%
  - Jobs Held by Workers of Color*: 14% 16%
  - Jobs Held by Hispanic/Latino Workers*: 8% 8%

#### Employment Resource Centers

- Parkrose HS
- Parkrose Mid
- IRCO Africa House
- Mt. Hood Community College

#### Education & Educational Services

- IRCO

#### Community Health Care Services

- WINC0
- Professional Plaza

*Low/Medium wage jobs defined as having earnings of under $3,333 per month, or about $40,000 per year. Jobs held by workers of color include jobs where the race indicated was not “White Alone”. Jobs held by Hispanic/Latino workers include jobs where the ethnicity indicated was Hispanic/Latino. Source: US Census Bureau.
### Line 23 – Rafael

*Added frequency on Weekdays*

- ☑ Creates new access  ☑ Improves access  □ Removes access  □ Reduces access

<table>
<thead>
<tr>
<th>Employment Resource Centers</th>
<th>Education &amp; Educational Services</th>
<th>Community Health Care Services</th>
<th>Grocery Stores &amp; Supermarkets</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improves access to an estimated <strong>47,429 jobs</strong></td>
<td>• IRCO Africa House</td>
<td>• IRCO Morrison Center Child and Family Services</td>
<td>• WINCO (2 locations)</td>
</tr>
</tbody>
</table>

#### Employment

- **Low/Medium Wage Jobs**
  - Line 23: 56%
  - TriMet District: 53%

- **Jobs Held by Workers of Color**
  - Line 23: 15%
  - TriMet District: 16%

- **Jobs Held by Hispanic/Latino Workers**
  - Line 23: 8%
  - TriMet District: 8%

*Low/Medium wage jobs defined as having earnings of under $3,333 per month, or about $40,000 per year. Jobs held by workers of color include jobs where the race indicated was not “White Alone”. Jobs held by Hispanic/Latino workers include jobs where the ethnicity indicated was Hispanic/Latino. Source: US Census Bureau.*

---

**Note:** The table above summarizes the employment opportunities created by Line 23, focusing on access improvements in various sectors such as employment, education, community health care, and grocery stores and supermarkets. The data includes specific percentages indicating the distribution of low/medium wage jobs and jobs held by workers of color and Hispanic/Latino workers.
### Line 25 – Glisan/Rockwood

**Added frequency on Weekdays**

- Creates new access
- Improves access
- Removes access
- Reduces access

<table>
<thead>
<tr>
<th>Employment</th>
<th>Employment Resource Centers</th>
<th>Education &amp; Educational Services</th>
<th>Community Health Care Services</th>
<th>Grocery Stores &amp; Supermarkets</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <strong>Improves</strong> access to an estimated <strong>12,495 jobs</strong></td>
<td>• IRCO Africa House</td>
<td>• Human Solutions</td>
<td>• Albertsons</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Latino Network</td>
<td>• Albertina Kerr</td>
<td>• Rite Aid</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ellenwood Adult Care Home</td>
<td>• Walgreens (5 locations)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Impact NW</td>
<td>• La Tapatia Market</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Addictions NW</td>
<td>• WINCO</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• City of Portland Family Services Division</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Multnomah County WIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• IRCO</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The Mentor Network</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Low/Medium Wage Jobs defined as having earnings of under $3,333 per month, or about $40,000 per year. Jobs held by workers of color include jobs where the race indicated was not “White Alone”. Jobs held by Hispanic/Latino workers include jobs where the ethnicity indicated was Hispanic/Latino. Source: US Census Bureau.*

- **Low/Medium Wage Jobs**: 53% (69%)
- **Jobs Held by Workers of Color**: 15% (16%)
- **Jobs Held by Hispanic/Latino Workers**: 9% (8%)
**Line 30 – Estacada**

*Adds Sunday service*

- Creates new access
- Improves access
- Removes access
- Reduces access

### Employment

- **Improves** access to an estimated **136,897 jobs**

<table>
<thead>
<tr>
<th>Low/Medium Wage Jobs*</th>
<th>48%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jobs Held by Workers of Color*</td>
<td>12%</td>
</tr>
<tr>
<td>Jobs Held by Hispanic/Latino Workers*</td>
<td>7%</td>
</tr>
</tbody>
</table>

### Employment Resource Centers

- Clackamas Community College
- Clackamas Middle College
- Estacada High School
- Alder Creek Middle
- Estacada Junior High

### Education & Educational Services

- North Clackamas DHS
- Friends of Estacada Community Center
- Helping Hands Home Care
- Harewell Senior Care of Portland

### Community Health Care Services

- Safeway

*Low/Medium wage jobs defined as having earnings of under $3,333 per month, or about $40,000 per year. Jobs held by workers of color include jobs where the race indicated was not “White Alone”. Jobs held by Hispanic/Latino workers include jobs where the ethnicity indicated was Hispanic/Latino. Source: US Census Bureau.*
**Line 32 – Oatfield**

*Adds Sunday service*

- Creates new access
- Improves access
- Removes access
- Reduces access

<table>
<thead>
<tr>
<th>Employment</th>
<th>Employment Resource Centers</th>
<th>Education &amp; Educational Services</th>
<th>Community Health Care Services</th>
<th>Grocery Stores &amp; Supermarkets</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improves access to an estimated <strong>43,889 jobs</strong></td>
<td>• Arise Mentors</td>
<td>• Clackamas Community College</td>
<td>• DHS District 15</td>
<td>• Safeway (2 locations)</td>
</tr>
<tr>
<td></td>
<td>• Sylvan Learning Center</td>
<td>• Oregon City High Program</td>
<td>• Senior Citizens Council of Clackamas</td>
<td>• Rite Aid</td>
</tr>
<tr>
<td></td>
<td>• Cascade Academics</td>
<td>• Putnam High School</td>
<td>• Parrott Creek Family Services</td>
<td>• Walgreens (5 locations)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rowe Middle</td>
<td>• Morrison Center</td>
<td>• Walmart</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Milwaukie High</td>
<td>• Roth Senior Care</td>
<td>• Albertsons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Kraxberger Middle</td>
<td>• Family Stepping Stones</td>
<td>• WB Mart</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clackamas Community College</td>
<td>• The Living Room</td>
<td>• Milwaukie Grocery Outlet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Milwaukie Academy of the Arts</td>
<td>• Los Nino Cuentan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Recovery Associations Project</td>
<td></td>
</tr>
</tbody>
</table>

*Low/Medium wage jobs defined as having earnings of under $3,333 per month, or about $40,000 per year. Jobs held by workers of color include jobs where the race indicated was not “White Alone”. Jobs held by Hispanic/Latino workers include jobs where the ethnicity indicated was Hispanic/Latino. Source: US Census Bureau.*
Line 74 – 162nd Ave.
Added frequency on Weekdays and New Weekend service
☐ Creates new access  ☑ Improves access  ☐ Removes access  ☐ Reduces access

<table>
<thead>
<tr>
<th>Employment</th>
<th>Employment Resource Centers</th>
<th>Education &amp; Educational Services</th>
<th>Community Health Care Services</th>
<th>Grocery Stores &amp; Supermarkets</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <strong>Improve</strong> access to an estimated <strong>43,840 jobs</strong></td>
<td></td>
<td>• Open School East</td>
<td>• Allied Health Services</td>
<td>• Safeway</td>
</tr>
<tr>
<td>Low/Medium Wage Jobs*</td>
<td>Employment Resource Centers</td>
<td></td>
<td>• Centennial Transition Center</td>
<td>• Rite Aid</td>
</tr>
<tr>
<td>Jobs Held by Workers of Color*</td>
<td></td>
<td></td>
<td>• Albertina Kerr Centers for Children</td>
<td>• Walgreens (3 locations)</td>
</tr>
<tr>
<td>Jobs Held by Hispanic/Latino Workers*</td>
<td></td>
<td></td>
<td>• Morrison Center</td>
<td>• Walmart</td>
</tr>
</tbody>
</table>

*Low/Medium wage jobs defined as having earnings of under $3,333 per month, or about $40,000 per year. Jobs held by workers of color include jobs where the race indicated was not “White Alone”. Jobs held by Hispanic/Latino workers include jobs where the ethnicity indicated was Hispanic/Latino. Source: US Census Bureau.

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DRAFT FY2020 Annual Service Plan Equity Analysis
**Line 76 – Beaverton/Tualatin**

*Added frequency on Weekdays and Weekends*

- Creates new access
- Improves access
- Removes access
- Reduces access

---

**Employment**

- **Improves access to an estimated 101,669 jobs**

  **Low/Medium Wage Jobs***
  - TriMet District: 53%
  - Line 76: 56%

  **Jobs Held by Workers of Color***
  - TriMet District: 16%
  - Line 76: 12%

  **Jobs Held by Hispanic/Latino Workers***
  - TriMet District: 8%
  - Line 76: 9%

---

**Employment Resource Centers**

- Sylvan Learning Center
- GED Prep
- Village Home Education Resource Center
- Durham Education Center
- Tigard HS
- Beaverton HS

**Education & Educational Services**

- Helping Hands for Seniors
- Luke-Dorf Behavioral Health Service
- Infinite Care Giving Services
- Housing Independence
- Comfort Keepers
- Loving Care Providers
- Rebuilding Together

**Community Health Care Services**

- Rite Aid
- Haggen Food & Pharmacy
- Grocery Outlet Beaverton
- Albertsons

---

*Low/Medium wage jobs defined as having earnings of under $3,333 per month, or about $40,000 per year. Jobs held by workers of color include jobs where the race indicated was not “White Alone”. Jobs held by Hispanic/Latino workers include jobs where the ethnicity indicated was Hispanic/Latino. Source: US Census Bureau.*
Line 78 – Beaverton/Lake Oswego

Route change to take over Line 42. Earlier/later weekday service and weekend service on Denney Rd. and Hall Blvd

- Creates new access
- Improves access
- Removes access
- Reduces access

<table>
<thead>
<tr>
<th>Employment Resource Centers</th>
<th>Education &amp; Educational Services</th>
<th>Community Health Care Services</th>
<th>Grocery Stores &amp; Supermarkets</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improves access to an estimated <strong>25,523 jobs</strong></td>
<td>• Whitford Middle</td>
<td>• Infinite Care Giving Services</td>
<td>• Grocery Outlet Beaverton</td>
</tr>
<tr>
<td></td>
<td>• Westside Christian HS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Janus Youth Programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low/Medium Wage Jobs*</td>
<td>63%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jobs Held by Workers of Color*</td>
<td>13%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jobs Held by Hispanic/Latino Workers*</td>
<td>9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Low/Medium wage jobs defined as having earnings of under $3,333 per month, or about $40,000 per year. Jobs held by workers of color include jobs where the race indicated was not “White Alone”. Jobs held by Hispanic/Latino workers include jobs where the ethnicity indicated was Hispanic/Latino. Source: US Census Bureau.