

CHAPTER 8: TITLE VI SERVICE EQUITY ANALYSIS

Title VI of the Civil Rights Act requires that major transit service changes be reviewed to ensure that there is no disparate or adverse impact to low income and minority populations. While no major service changes are being implemented at this time, Metro Transit commissioned a Title VI review of the Service Improvement Plan to inform the planning process and to ensure that the plan did not represent a negative impact on these communities.

The complete Title VI Service Equity Analysis report for the Service Improvement Plan, including additional detail and maps, is located in Appendix K.

A. Evaluation Methodology

A geographic information systems (GIS)-based approach was employed in this analysis to measure the location and magnitude of proposed service changes and compare the distribution of impacts and benefits to minority, non-minority, low-income, and non-low-income populations. The analysis consists of five steps:

- Model current and proposed service levels.
- Spatially allocate current and proposed transit service levels to population groups based on intersection between service buffer and census block centroid.
- Calculate the percent change in service between the current and proposed service levels for each census block.
- Calculate the average percent change in service for all minority/low-income and non-minority/non-low-income populations within the service area buffer for the current and proposed transit service.
- Determine whether the proposed service will result in disparate impacts by applying the disparate impact and disproportionate burden policies.

This analysis used the number of trips available to each census block as a measure of overall transit service levels. Common improvements to transit service, such as increased frequency and increased span of service, will result in an increase in the number of trips available. The addition of service to a new area will also result in an increase in the number of trips available to the surrounding areas.

B. Modeling Current and Proposed Service Levels

Two networks were modeled to represent the current service levels and the proposed service levels. The current service level network represents the conditions as of December 2014. The proposed service level network represents the conditions after the SIP service changes are implemented by 2030. The service changes included in this evaluation are those projects in the SIP ranked as High or Medium. It does not include Arterial Bus Rapid Transit corridors.

C. Evaluation of Impacts

In total, 1,405,599 people live in census blocks within the area that is experience a change in service. This population includes 380,865 minority persons, 1,024,734 non-minority persons, 227,044 low-income persons, and 1,178,555 non-low-income persons. The average percent change in service levels for each target population group is summarized in Table 8.

Table 8: Average Service Level Change by Population Group

Population Group	Population of Service Change Area	Average Percent Service Change	Four-Fifths Threshold (Minimum)
Minority	380,865	36.5%	31.4%
Non-Minority	1,024,734	39.2%	-
Low-Income	227,044	35.9%	31.2%
Non-Low-Income	1,178,555	39.0%	-
Total	1,405,599	38.5%	-

All population groups experience an overall increase in transit service availability as a result of the proposed service changes. The average individual in the service change area experiences a 38.5 percent increase in transit service.

The average minority individual in the service change area experiences a 36.5 percent increase in transit service. This value is less than the average increase of 39.2 percent for non-minority individuals, but is greater than the four-fifths threshold of 31.4 percent. No potential for disparate impact to minority populations is identified.

The average low-income individual in the service change area experiences a 35.9 percent increase in transit service. This value is less than the average increase of 39.0 percent for non-low-income individuals, but is greater than the four-fifths threshold of 31.2 percent. Therefore, no potential for disproportionate burden to low-income populations is identified.

While the analysis above investigates the change in service level for each population group resulting from the SIP changes, it is also important to evaluate the cumulative impacts of previous service changes. Table 9 displays the total number of bus trips available to each population group following the implementation of the SIP changes.

Table 9: Average Number of Trips Available by Population Group

Population Group	Average Number of Weekly Bus Trips within 1/4 Mile	
	Current Conditions	Proposed Conditions
Minority	1,127	1,480
Non-Minority	873	1,166
Low-Income	1,359	1,776
Non-Low-Income	862	1,151
Total	942	1,251

The previous analysis showed that both minority and low-income populations receive slightly smaller percent increases in service due to the SIP changes. However, Table 9 shows that the average number of bus trips within one-quarter mile of minority individuals under the SIP is 1,480 weekly trips, higher than the average for non-minority individuals at 1,166. Likewise, the average number of bus trips available to low-income individuals is 1,776, higher than the average for non-low-income individuals at 1,151.

It is important to note that this trip count does not include METRO trips such as LRT and BRT service. This average count does also not take into account populations located within the boundaries of Metro Transit’s service area which are not located within one quarter-mile of the existing or proposed service.