



METROPOLITAN
TRANSPORTATION
COMMISSION

Agenda Item 5
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TO: Policy Advisory Council

DATE: July 5, 2018

FR: Mallory Atkinson

RE: Draft 2019 Transportation Improvement Program (TIP) Investment Analysis

On June 18, 2018, MTC released the Draft 2019 TIP for a thirty-day public comment period. The Draft 2019 TIP is available online at <https://mtc.ca.gov/our-work/fund-invest/transportation-improvement-program>.

As part of the TIP, MTC conducts an Investment Analysis to better understand how investments in the TIP affect disadvantaged or historically marginalized communities – including minorities, low-income populations, seniors, and persons with disabilities – as compared to the general population. This memo describes the results of the Draft 2019 TIP Investment Analysis, which is provided at the link above.

TIP Background

The TIP is a comprehensive list of near-term transportation projects, programs, and investment priorities for the nine-county Bay Area. The majority of projects in the TIP are federally funded, although some local or state-funded projects are also included, particularly those that are large in scale or impact travel patterns over a relatively large geographic area, such as a new lane on a state highway. In reviewing TIP investments as a whole, it is important to keep in mind that most transportation projects are local, in both scale and funding, and these projects are typically not reflected in the TIP. These projects include pavement preservation, transit operations and maintenance, planning efforts, bicycle/pedestrian improvements, and minor intersection improvements.

The Draft 2019 TIP includes more than 500 transportation projects with approximately \$13.2 billion in committed federal, state and local funding programmed in the four year period from FY 2018-19 through FY 2021-22. The Draft 2019 TIP also includes over 200 projects with no funding in the four year period for informational purposes.

TIP Investment Analysis

The 2019 TIP investment analysis is built on three components that work together to better understand how low-income and minority communities, seniors, and persons with disabilities may be affected by the proposed investments in the 2019 TIP. Attachment A includes an investment analysis summary. The investment analysis includes the following components:

- *Population Use-Based Analysis*: This analysis compares the estimated percent of investments included in the TIP that benefit low-income and minority populations, as well as seniors, to the percent of these populations' relative usage of the transportation system.

- *Disparate Impact Analysis:* This portion of the analysis compares TIP investments of funding from state and federal sources per capita for racial or ethnic minority populations as a percentage of per capita investments identified for nonminority populations, to identify whether disadvantaged persons in the region are receiving an equitable share of the benefits from TIP investments on a per capita basis. A similar analysis was conducted on a per rider basis.
- *Transportation-Related Equity Measures:* The third component of the analysis highlights projects and investments that are likely to support our regional performance targets in five transportation-related equity measures from Plan Bay Area 2040, listed below.

Plan Bay Area 2040	
Goal Area	Performance Target
Healthy and Safe Communities	Reduce adverse health impacts associated with air quality, road safety, and physical inactivity by 10%
Economic Vitality	Increase by 20% the share of jobs accessible within 30 minutes by auto or within 45 minutes by transit in congested conditions
Transportation System Effectiveness	Reduce vehicle operating and maintenance costs due to pavement conditions by 100%
Equitable Access	Reduce per-rider transit delay due to aged infrastructure by 100%
	Decrease the share of lower-income residents' household income consumed by transportation and housing by 10%

- *Persons with Transportation-Related Disabilities:* Limitations in the data available make it difficult to quantify transportation system usage of persons with disabilities to the degree necessary for the population use-based analysis. However, transportation investments benefiting these populations are being made throughout the region. The analysis document includes an overview of regional investments and planning initiatives that support transportation by persons with disabilities.

Caltrans recently awarded a \$407,000 grant to MTC and the World Institute on Disability (WID) for a pilot project focused on identifying and addressing access and mobility needs of people with disabilities in the Bay Area. The project will explore ways to expand institutional capacity at transit and paratransit service providers, county congestion management agencies, local jurisdictions and regional agencies to better understand and address access and mobility needs of people with a disability. MTC will partner with WID to engage community-based organizations and other stakeholders to develop a methodology and process for collecting data and updating a regional needs assessments. The project is anticipated to start in fall 2018 and end by March 2020.

Summary of Key Findings

- **Equitable distribution of investments overall**
The results of the population use-based analysis indicate that overall, the 2019 TIP directs an equitable proportion of investments to projects that support the transportation of residents of low-income households, racial or ethnic minorities, and seniors.
- **Variable results for transit, due to small number of very large investments**
There are a few variances worth noting in the population used-based analysis and disparate impact analysis, specifically related to transit. The share of transit investments that support trips made by passengers in low-income households (40%) falls somewhat

short of these passengers' relative share of the transit trips taken (47%). In addition, federal and state transit investments result in a per capita benefit for minorities that slightly exceeds the per capita benefit for non-minorities (105% of non-minority per capita benefit). However, on a per transit rider basis, federal and state transit investments fall short, with a minority per rider benefit of 92% of the non-minority per rider benefit.

The varied results in the 2019 TIP are attributed to a number of large projects, including: BART's Railcar Procurement Program and Transbay Core Capacity Improvements Program, Caltrain Electrification and Expansion projects, the Transbay Joint Power Authority's Caltrain Downtown Extension. Together, these projects account for almost 40% of all transit funding in the 2019 TIP. When focusing only on state and federal funds, these projects account for approximately 35% of funding in the TIP period.

While BART ridership approximately mirrors the regional ridership share for minority populations, the share of BART riders from low-income households is less than the regional average share. Caltrain is used by a lower proportion of low-income and minority riders than the regional average for transit riders.

- **Addition of transportation equity measures provides opportunity for better understanding of potential equity impacts**

The additional information provided on investments that support Plan Bay Area 2040's transportation-focused equity measures aims to build upon the population use-based and disparate impact analyses to better understand the nature of the projects included in the 2019 TIP and their anticipated effects on long-term regional goals. Where possible, projects supporting the transportation-focused equity measures were mapped to illustrate the location of investments in relation to adopted Communities of Concern. These maps are included in the 2019 TIP Investment Analysis itself, and are also viewable through an interactive web map available at: <https://mtc.ca.gov/our-work/fund-invest/transportation-improvement-program>.

The geographic display of projects provides an opportunity to visualize the distribution of projects by different project types in relation to concentrations of disadvantaged groups. This allows for identification of any apparent systematic exclusion of communities in the spatial distribution of benefits, or any apparent systematic imbalances between the distribution of projects between communities of concern and the remainder of the region, or between minority and non-minority communities.

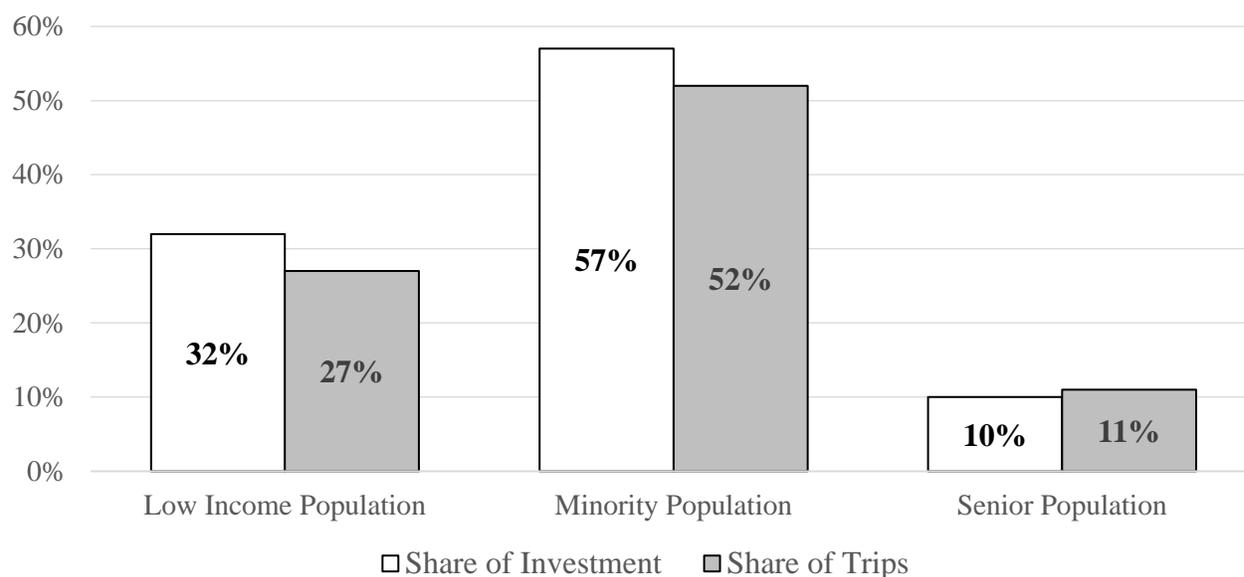
MTC staff welcomes feedback on the results and findings of the Draft 2019 TIP Investment Analysis, as well as recommendations to further improve upon the methodology used in the analysis.

Attachment

Investment Analysis Summary

The 2019 TIP Investment Analysis is an assessment of TIP investments through an equity lens, specifically focused on the Bay Area’s disadvantaged populations. The purpose of the analysis is to understand if low-income and minority populations, seniors, and persons with disabilities are sharing equitably in the region’s near-term transportation investments. The results of the population use-based analysis indicates that overall, the investments in the draft 2019 TIP direct an equitable proportion of investments to projects that support the transportation of residents of low-income households, racial and ethnic minorities, and seniors.

2019 TIP Investments and Trips by Population



Key Findings

Variable results for transit, due to small number of very large investments

There are a few variances worth noting in the population used-based analysis and disparate impact analysis, specifically related to transit.

- The share of transit investments that support trips made by passengers in low-income households (40%) falls somewhat short of these passengers’ relative share of the transit trips taken (47%).
- Federal and state transit investments result in a per capita benefit for minorities that slightly exceeds the per capita benefit for non-minorities (105% of non-minority per capita benefit). However, on a per transit rider basis, federal and state transit investments fall short, with a minority per rider benefit of 92% of the non-minority per rider benefit.

The varied results in the 2019 TIP are attributed to a number of large projects, including:

- BART’s Railcar Procurement Program;
- BART’s Transbay Core Capacity Improvements Program;
- Caltrain Electrification;
- Caltrain’s Peninsula Corridor Electrification Expansion; and
- Transbay Joint Power Authority’s Caltrain Downtown Extension.

Together, these five projects account for almost 40% of all transit funding in the 2019 TIP. When focusing only on state and federal funds, these projects account for approximately 35% of funding in the TIP period. While BART ridership approximately mirrors the regional ridership share for minority populations, the share of BART riders from low-income households is less than the regional average share. Caltrain is used by a lower proportion of low-income and minority riders than the regional average for transit riders.

The degree of the variances seen in the 2019 TIP disparate impact transit analysis are notably improved as compared to the 2017 TIP, with the minority per transit rider investment disbenefit decreasing from 89% in the 2017 TIP to 92% in the 2019 TIP. In addition, the minority per capita transit investment increases from 96% of the non-minority per capita investment (disbenefit) in the 2017 TIP to 105% of the non-minority per capita investment (benefit) in the 2019 TIP.

It is important to re-emphasize, that the TIP does not reflect the full picture of transportation investments in the Bay Area. The TIP only includes four years of near-term fund programming and tends not to include operating and maintenance funds, particularly for transit.

Addition of transportation equity measures provides opportunity for better understanding of potential equity impacts

For the 2019 TIP, additional information is provided on projects that support Plan Bay Area 2040's transportation-focused equity measures: Healthy and Safe Communities, Economic Vitality, Transportation System Effectiveness, and Equitable Access. Although the analysis does not identify direct benefits and burdens resulting from individual investments, it builds upon the population use-based and disparate impact analyses to better understand the nature of the projects included in the 2019 TIP and their anticipated effects on long-term regional goals. Data for the transportation equity measures is self-reported by project sponsors, therefore the resulting information is limited by the quality and consistency of the data provided.

Where possible, projects supporting the transportation-focused equity measures were also mapped to illustrate the location of 2019 investments in relation to adopted COCs as well as census tracts with concentrations of minority populations that are above regional averages. The geographic display of projects allows for examination and identification of any apparent systematic exclusion of communities in the spatial distribution of benefits, or any apparent systematic imbalances between the distribution of projects between communities of concern and the remainder of the region, or between minority and non-minority communities. As noted above, many projects and additional data can be viewed on an interactive webmap available on <https://mtc.ca.gov/our-work/fund-invest/transportation-improvement-program>.