

The Effects of the COVID-19 Pandemic on Transit in the San Francisco Bay Area

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Introduction

This study investigated the dramatic, varied impacts that the COVID-19 pandemic has had on San Francisco Bay Area transit operators. While bus operators—especially those serving transit dependent riders—have recovered patronage relatively quickly, commuter-oriented modes (express bus and rail) serving downtown San Francisco have recovered ridership to only about 60% of pre-pandemic levels. BART and Caltrain ridership is now only about 45% of pre pandemic levels; these agencies have been affected most by decreased ridership because most of their operating funding comes from fares. This decrease is primarily due to changing travel patterns, resulting from downtown office employers shifting to full or part-time work-at-home arrangements. Thus, working at home has sharply reduced the number of trips to major transit destinations, particularly downtown San Francisco. Most agencies have reduced service to lower operating costs: Muni and AC Transit have eliminated a number of express routes serving downtown San Francisco; BART has reduced service frequencies for daytime operations. BART, Muni, and Caltrain face the most severe shortage of operating funds beginning in fiscal year 2026. Because of their high fixed operating costs, there is no feasible way for these agencies to remain viable were they to reduce service. These systems can remain viable only if additional funding from outside sources can be provided, such as bridge toll surcharges or additional regional taxes.

Study Methods

The study built upon discussions with a number of Bay Area transit operators, which informed detailed quantitative analysis of relevant publicly available data sources. Data sources analyzed include the following:

- Census data (American Community Survey) were used to look at changes in commuting behavior in

the Bay Area and for comparison to other large urban areas with rail systems.

- Public Use Microdata Sample (PUMS) data were analyzed to look at detailed commuting patterns by household demographics and income.
- National Transit Database (NTD) data were used to analyze overall transit ridership changes (number of trips and passenger miles), operating costs, level of service, and productivity.
- General Transit Feed Specification (GTFS) data were used to examine changes in transit service from 2019 (pre-pandemic) to 2024 (post-pandemic), including route and stop locations.
- Caltrans freeway Performance Measurement System (PeMS) data were used to examine changes in freeway commuter traffic and peak-period level of service.
- Where available, detailed agency patronage data were used to analyze patronage by route and time of day. BART in particular collects detailed trip origin-destination data by time of day; these were used to identify BART's travel markets that showed the most significant changes in patronage.

Findings

The study revealed valuable insights regarding the following:

Transit Demand

- The Bay Area saw a large drop in transit ridership during the pandemic.
- Ridership in the region has recovered some since the pandemic but remains low.
- Bus ridership has recovered faster than rail's and is now at about 80% of pre-pandemic levels.

- Rail ridership has recovered much more slowly, with BART and Caltrain under 45% of pre-pandemic levels.
- Most of these decreases appear to be due to an increase in employees working at home.
- Downtown San Francisco vacancy rates remain high due to working at home and many of these workers will likely continue hybrid office/at-home schedules.

Level of Service

- Most agencies have adjusted to lower ridership by making service cuts.
- Muni and AC Transit have eliminated some express routes that served long-distance commute trips.
- BART has made some service cuts by increasing its headways, particularly during the peak periods.

Economics and Finance

- Bus farebox recovery rates are less than half of pre-pandemic levels and rail rates have fallen even more.
- BART and Caltrain farebox recovery rates have fallen from 70% to about 20%.
- The largest agencies will face severe funding shortfalls beginning in fiscal year 2026 as their federal pandemic emergency funds run out.

Large, commuter-oriented transit operators in the San Francisco Bay Area will face severe and existential revenue shortfalls beginning in Fiscal Year 2026 unless additional funding sources are found. Potential additional funding sources include new state bridge tolls and/or a regional sales tax increase.

Policy/Practice Recommendations

There are no easy solutions to these problems. Possible remedies fall into three categories:

- Increase ridership: Reducing fares will likely decrease total revenues, and improving service will add costs that will not likely be offset by added fare revenues.
- Reduce operating costs: Implementing service

cuts will not likely offset major budget shortfalls, and severe cuts will likely cause a severe revenue drop, nullifying any revenue benefits.

- Seek additional revenues:
 - Increasing fares would generate additional revenue but not enough to offset budget shortfalls.
 - New taxes (e.g., a regional half-cent sales tax) could offset budget shortfalls for large operators (e.g., Muni, BART).
 - Raising tolls on the region's state bridges would increase revenue for transit operators and reduce auto demand.

Without additional funding sources, these transit operators will face severe shortfalls that will impact our communities and limit the ways we move in the Bay Area. Identifying and implementing additional funding sources could keep transit operating and riders able to move freely and contribute to the economy.

About the Authors

Professor Richard Lee, David Reinke, Christopher Ferrell, Charles Rivasplata, and John Eells are principals of Transportation Choices for Sustainable Communities. Each of the five authors has worked in transportation research for over 25 years. Luana Chen is a graduate student and Drs. Lee and Rivasplata are faculty in the Urban and Regional Planning Program at San José State University. David Reinke and Christopher Ferrell have extensive transportation research experience in both public and private sectors in the U.S. and the U.K.

To Learn More

For more details about the study, download the full report at transweb.sjsu.edu/research/2313



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