

# Caltrain Business Plan

WPLP Committee

March 25, 2020



## Agenda for Today



### Process Overview



### Rounding out the Long Range Vision

- Station Access and Connectivity



- Existing Opportunities & Challenges



# Process Overview

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## What is the Caltrain Business Plan?

**What** Addresses the future potential of the railroad over the next 20-30 years. It will assess the benefits, impacts, and costs of different service visions, building the case for investment and a plan for implementation.

**Why** Allows the community and stakeholders to engage in developing a more certain, achievable, financially feasible future for the railroad based on local, regional, and statewide needs.



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# What Will the Business Plan Cover?

## Technical Tracks



### Service

- Number of trains
- Frequency of service
- Number of people riding the trains
- Infrastructure needs to support different service levels



### Business Case

- Value from investments (past, present, and future)
- Infrastructure and operating costs
- Potential sources of revenue



### Community Interface

- Benefits and impacts to surrounding communities
- Corridor management strategies and consensus building
- Equity considerations



### Organization

- Organizational structure of Caltrain including governance and delivery approaches
- Funding mechanisms to support future service



## Timeline

July 2018 – July 2019

Development and Evaluation of Growth Scenarios

October 2019

Adoption of Long-Range Service Vision

Fall 2019

Rounding Out the Vision and Implementation Planning

Winter 2019-2020

Spring 2020

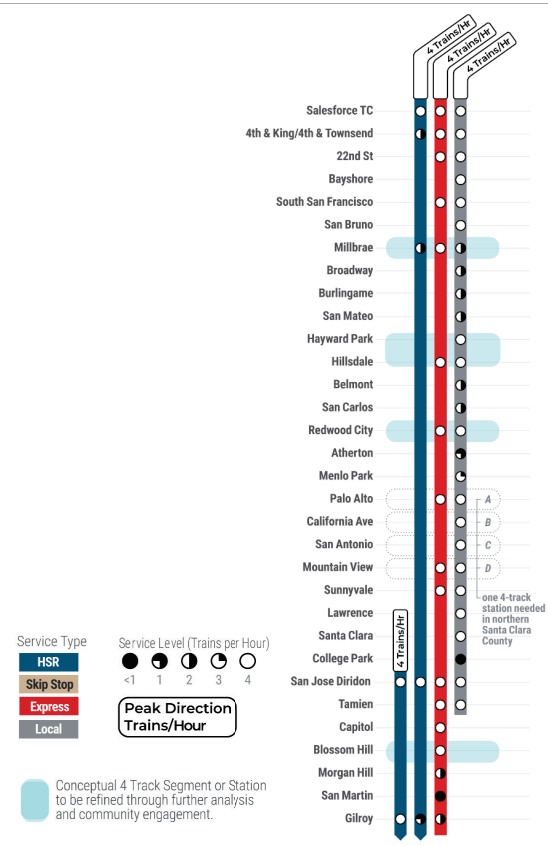
Completion of Business Plan



# Caltrain's 2040 Service Vision

## Illustrative Service Details

<b>Trains per Hour, per Direction</b>	Peak: 8 Caltrain + 4 HSR Off-Peak: Up to 6 Caltrain + 3 HSR
<b>Stopping Pattern</b>	Local / Express with timed transfer in Mid Peninsula
<b>Travel Time, STC-Diridon</b>	61 Min (Express) 85 Min (Local)
<b>New Passing Tracks</b>	Millbrae, Hayward Park-Hillsdale, Redwood City area, Northern Santa Clara County, Blossom Hill
<b>Service Plan Description</b>	<ul style="list-style-type: none"> <li>Local and Express trains each operating at 15-minute frequencies with timed cross-platform transfer at Redwood City</li> <li>All trains serve Salesforce Transit Center</li> <li>Trains serve Capitol and Blossom Hill every 15 minutes and Morgan Hill and Gilroy every 30 minutes</li> <li>Skip stop pattern for some mid-Peninsula stations</li> </ul>



# Caltrain's 2040 Service Vision - Investments

### CAPITAL COSTS

**\$23 BILLION**  
TOTAL CAPITAL COSTS\*

Capital costs include all projects from SF to Gilroy, knitting together a connected corridor with greatly improved service.



**\$9.4B**  
GRADE SEPARATIONS



**\$7.8B**  
TERMINAL IMPROVEMENTS



**\$3.3B**  
RAIL INFRASTRUCTURE AND SYSTEMS



**\$1.4B**  
STATION IMPROVEMENTS



**\$1.1B**  
FLEET UPGRADES

### OPERATING COSTS

**\$370 MILLION**  
2040 ANNUAL OPERATING COSTS\*

Caltrain is one of the leanest, most efficient transit services in the country. Today's annual operating and maintenance costs are \$135 million, and 73% is covered by fares. The vision would benefit from a similarly high farebox recovery ratio.

**\$266M**  
OPERATING COSTS COVERED BY FAREBOX (72%)



**\$104M**  
ANNUAL OPERATING INVESTMENT NEEDED (28%)

# Rounding Out the Vision

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## Remaining Technical Analysis Rounding Out the Vision

With a 2040 Service Vision adopted, how can Caltrain “Round Out” its vision for the future?

Additional technical and policy analysis are underway with a focus on areas that were highlighted as important through stakeholder outreach and help complete the picture of the railroad Caltrain hopes to become.



**Analysis of connections to other systems & station access options**



**Equity analysis & focus on making Caltrain accessible to all**



**Review of funding options and revenue generation opportunities to support the overall 2040 Vision (will be presented in April)**



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# Connecting to Caltrain



## Getting to Caltrain

The Service Vision plans for ridership to triple over the next two decades.

Achieving this kind of growth will mean big changes for how riders connect to and access the Caltrain system.

As it plans for the future, Caltrain must decide how to invest in first- and last-mile programs and prioritize the use of resources to improve access and connectivity to the system.

This assessment considers how station access needs may change over time, and potential paths forward to realizing the service vision.



# Caltrain's Roles in Station Access

Today Caltrain plays a limited and uneven institutional role in providing and coordinating access to the system. Access and connectivity functions not provided or coordinated through Caltrain are undertaken by Caltrain's partners (MUNI, SamTrans and VTA), by cities and local jurisdictions, and at times by the private sector.

## Current Roles



Partially funds some first/last mile shuttle operations



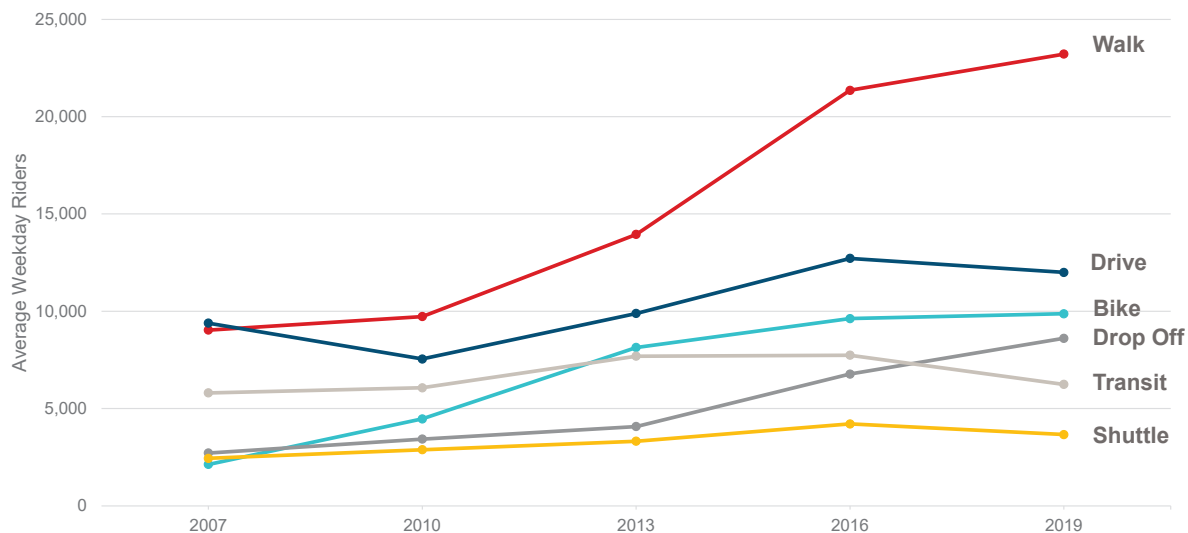
Provides and manages parking at some stations



Provides on-board and wayside bike parking; responsible for onsite pedestrian circulation on JPB-owned station facilities

# How do Weekday Passengers Travel to and from Caltrain?

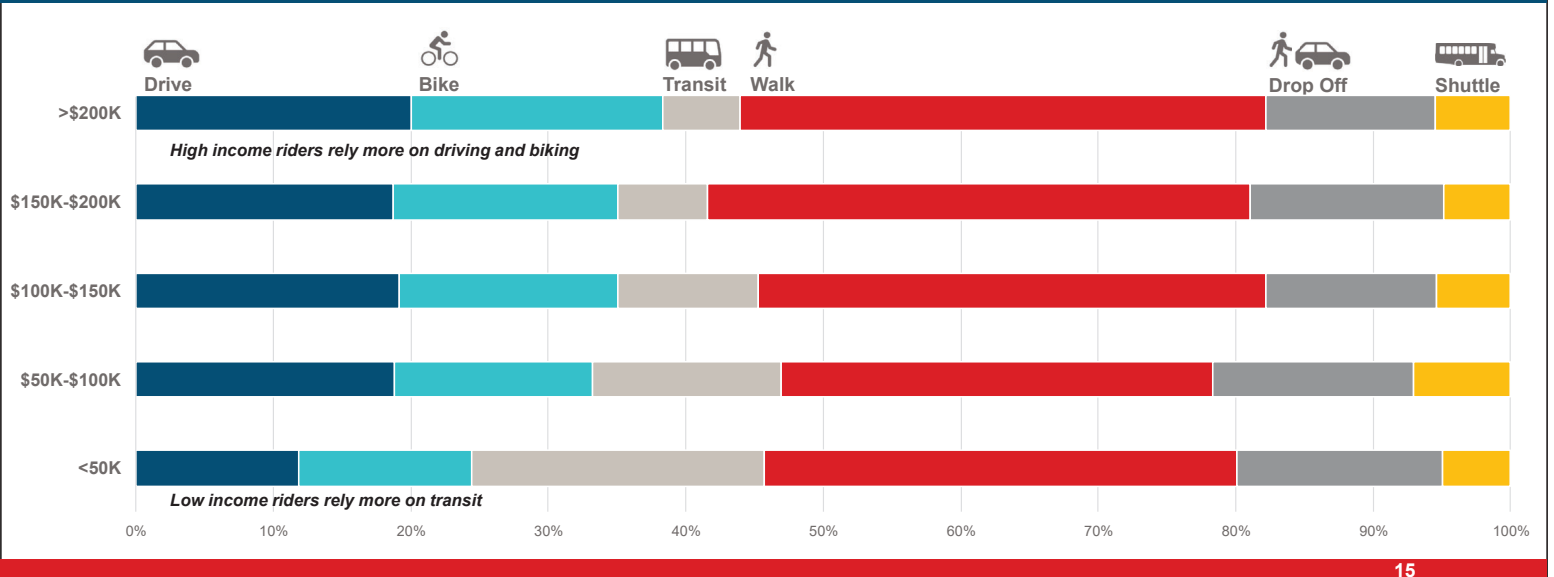
Data from Caltrain's Triennial Surveys- 2007 through 2019



# Equity

# Station Access by Household Income

Data from Caltrain's 2019 Triennial Survey



# Caltrain Manages 7,600 Parking Spaces for Low or No Fees



SF  
**0**  
 JPB-Managed Spaces

Bayshore – Diridon  
**5,400**  
 JPB-Managed Spaces

Tamien – Gilroy  
**2,200**  
 VTA-Managed Spaces

**Parking Rates**

Weekday \$5.50 daily flat fee  
 \$82.50 monthly flat fee  
 Weekend Free

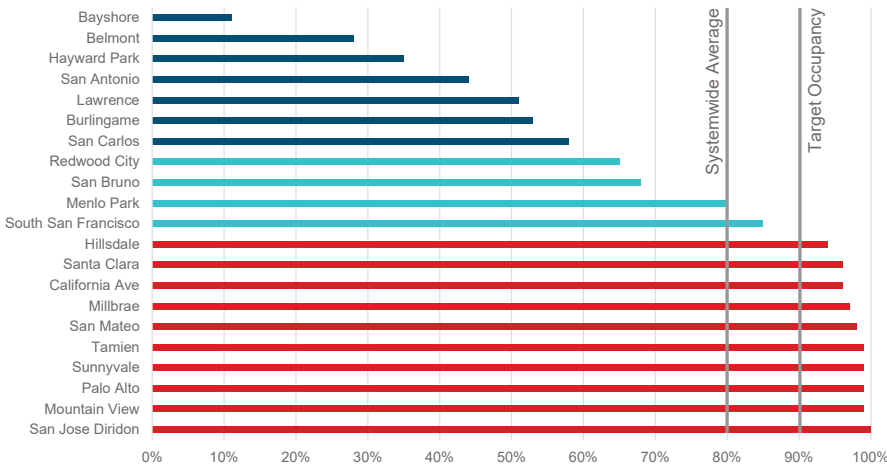
**Parking Rates**

Free



# Parking is Undersubscribed at Some Stations and Oversubscribed at Others

## Parking Occupancy



## Demand

**7**

Mainline stations with <60% parking occupancy, where parking is potentially overpriced relative to demand & service levels

**10**

Mainline stations with >90% parking occupancy, where parking is underpriced compared to nearby public and private lots

# Revenue and Pricing

**\$5.6M**

**Annual Caltrain Parking Revenues**

Including daily rates of \$5.50 per day or \$82.50 per month

**1.5-5X**

**Price of Nearby Public & Private Parking Lots**

Daily Rate Examples at public lots:

- Downtown San Mateo: \$7.50/day
- Menlo Park: \$10/day
- Downtown Palo Alto: \$25/day

**Free**

**Parking at stations south of Diridon (owned by VTA)**

Free lots may be used by non-Caltrain passengers



# Managing and Pricing Parking Are Key Opportunities

## Current Operations

### Caltrain Subsidizes Parking at Some Stations Relative to Market Rates

By charging a uniform rate across the system, Caltrain underprices parking at 10 high-demand stations relative to nearby public and private lots, which charge two to three times Caltrain's price

The benefits of this underpriced parking tend to accrue to high-income riders who are more likely to park at stations

This trend is likely to continue over time, although some spreading may occur as service improves across all stations

## Future Operations

### Active Parking Management Will Become More Important as Caltrain Increases Service

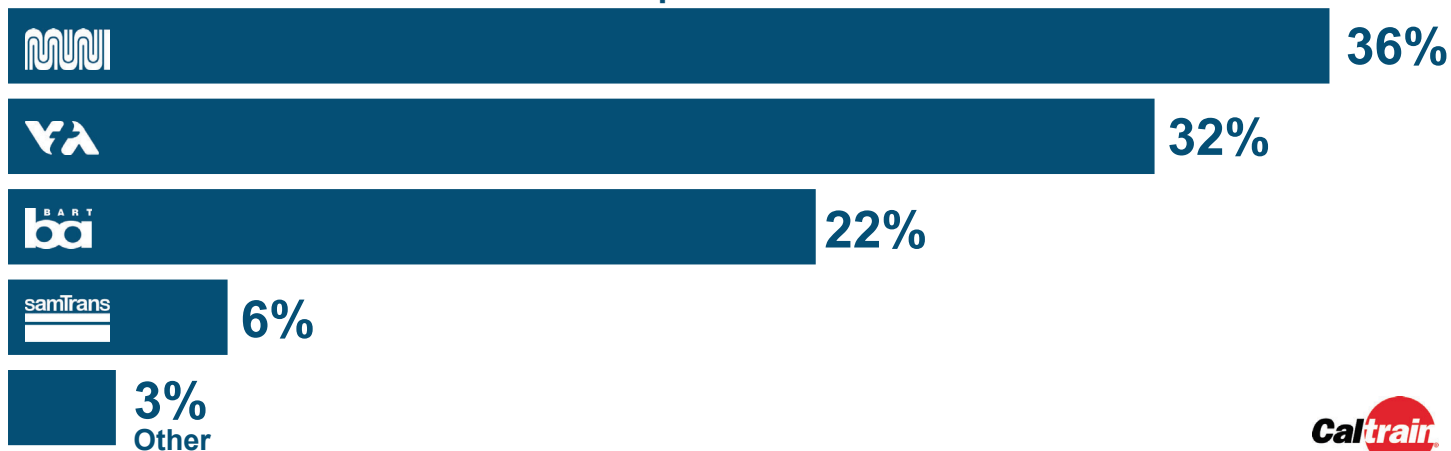
Caltrain may consider market-based pricing to better manage supply and demand during weekdays and weekends, similar to BART's proposed program

A market-based program could increase prices at some stations and decrease prices at other stations in order to reach a target weekday occupancy of around 90 percent

Pricing could be tied to occupancy surveys and service frequency

# 10% of Caltrain Riders Connect to Other Transit Services

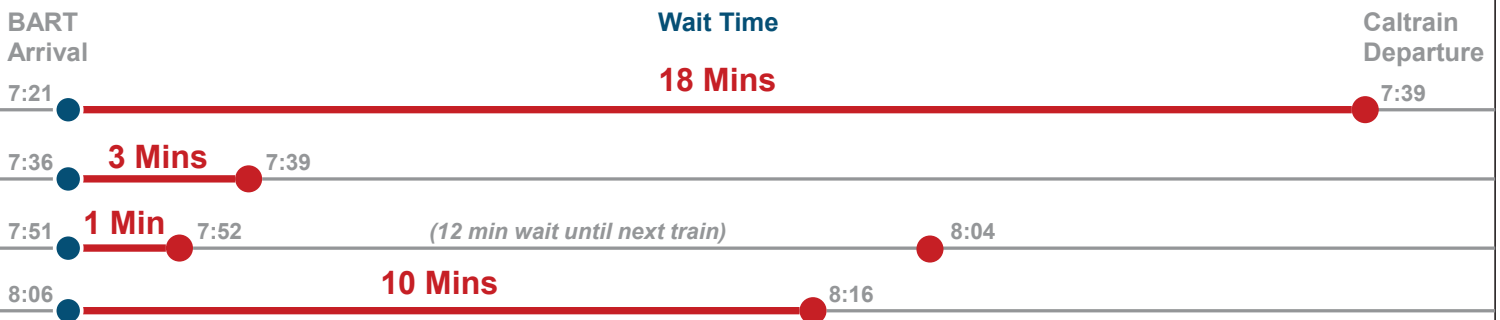
## Percent of Caltrain transfers to other operators



# Caltrain's Complex Service Pattern Limits Schedule Coordination

Today, Caltrain's highly customized schedule prevents regular coordinated transfers (~5 Minutes) with bus and rail services at most stations

Example: Southbound AM BART-Caltrain Connection at Millbrae



# Bus Operators Provide Discounted Transfers for Some Caltrain Fares

VTA and SamTrans offer transfer discounts to most Caltrain Monthly Pass holders, while Muni provides a discount for all Caltrain riders using a Clipper Card. Fare savings tend to accrue to higher income passengers, who represent a disproportionate share of Monthly Pass users



- ✓ 50 cent fare discount to all riders using a Clipper Card
- ❑ No discount on paper tickets



- ✓ Free local rides for two-zone or greater Monthly Pass holders
- ❑ No discount for one-way fares and other products



- ✓ Free local rides for two-zone or greater Monthly Pass holders
- ❑ No discount for one-way fares and other products



- ❑ No discounts



# Standardizing Caltrain Service Allows Improved Schedule Coordination

## Coordinating Schedules

Shifting to standardized clockface schedules with electrification will help Caltrain better coordinate transit connections

A Distributed Skip Stop pattern could offer timed connections to high and low frequency buses, BART, and VTA Light Rail.

A Two Zone with Express pattern could offer timed connections to BART and low frequency buses but would some connections would remain challenging

## Coordinating Fares

Further fare coordination presents an opportunity to increase ridership for Caltrain and partner agencies

Improved fare coordination could make transfers more seamless and convenient for all riders and could help Caltrain provide more equitable access for low- and middle-income riders who are more likely to connect via transit



# Shuttles Fill Gaps in the Transit Network



## Public and Private Shuttles Fill Gaps in Schedules and Service Areas



Service to areas where buses do not operate



Timed connections when buses can't coordinate with Caltrain's schedule



Augmented capacity where buses cannot handle peak-period demand

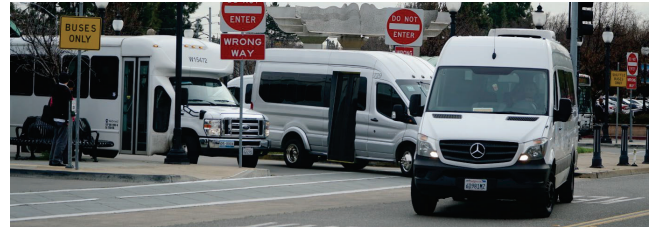
# Many Types of Shuttles Operate on the Caltrain Corridor



## Publicly Managed

Caltrain and the SMCTA manage 33 shuttles in San Mateo and Santa Clara Counties connecting to Caltrain

- 31 are free to the public
- 26 are co-funded by employers
- 4 are community shuttles oriented toward local travel needs



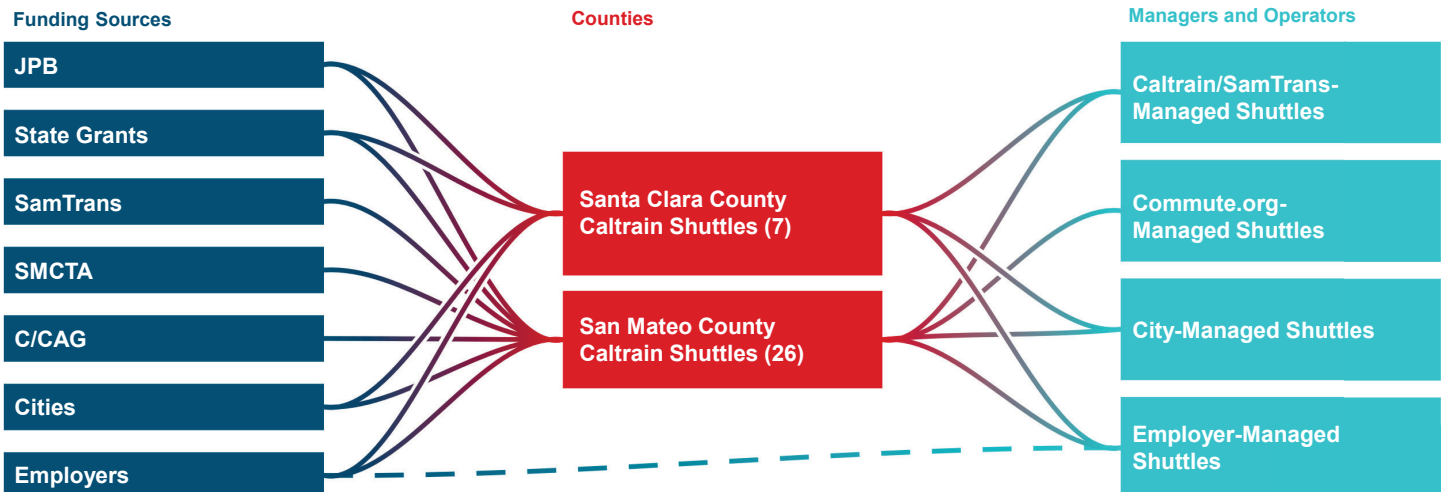
## Privately Managed

Major employers like Stanford and Genentech operate first/last mile shuttles free to the public

Dozens of other employers offer private shuttles for employees only

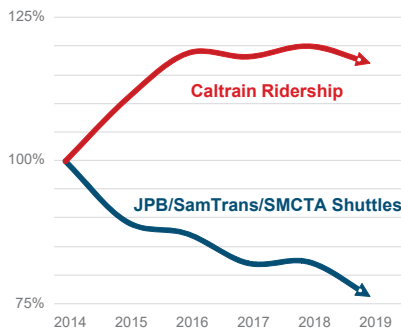
# Shuttle Funding Structure

The current system of shuttle funding and operations is extremely varied and complex. Funding comes from many different sources and varies significantly from route to route.



# Ridership on Publicly Managed Shuttles is Declining

## Ridership Comparison: Caltrain vs. Publicly-Managed Shuttles



## Shuttle Ridership is Declining as Caltrain Ridership Grows

Shuttle ridership on publicly managed shuttles has declined by 25% since 2014 while Caltrain ridership increased by 17%

Three quarters of routes have lost ridership over the past five years, with 14 routes experiencing losses greater than 40%

## Publicly Managed Shuttles Struggle to Match SamTrans /VTA Productivity Goals

6 of 33 routes meet SamTrans fixed route performance criteria for passengers per revenue hour

## Shuttles Lack Reliability and Time-Competitiveness

Limited funding, organizational capacity, and administrative complexity have contributed to ridership loss, including:

- Driver shortages
- Circuitous routes
- Inadequate stop infrastructure
- Competition from private services

# Privately Managed Shuttles Continue to Grow

## Stanford Marguerite

Stanford's shuttle ridership has increased 16% since 2014. About 20% of all their employees commute via Caltrain. Stanford's TDM program offers Caltrain Go Passes and financial incentives to employees to discourage driving to work

## Genentech

Genentech and other South San Francisco employers operate two shuttle routes to connect to Caltrain at Millbrae Station. The shuttle is open to the public.



# Caltrain's Role in Shuttle Operations

The current publicly-managed system is under-resourced to meet the changing needs of the Caltrain corridor

Demand for first/last mile services will increase substantially as land use intensifies and Caltrain service increases over time

The current system lacks the financial resources and operational capacity to efficiently handle increased demand over time

Caltrain and its partners will need to evolve the shuttle program to better leverage public buses and private partnerships

Caltrain and SamTrans are jointly funding a comprehensive study of the shuttle program

Additional work will be needed to further coordination around shuttles with all of Caltrain's member agencies, local jurisdictions and large employers

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# Pickup & Dropoff Activity is Increasing, but Facilities are Lacking

**Pickup & drop-off activity is increasing at most Caltrain stations**

Result of both limited parking as well as Uber/Lyft growth

**Half of Caltrain stations lack dedicated passenger loading zones**

Most passenger loading activity occurs in existing surface parking lots and nearby streets

**Caltrain must think holistically about onsite circulation**

Station circulation and curb programming are critical to handling increased pickup & dropoff activity while minimizing conflicts

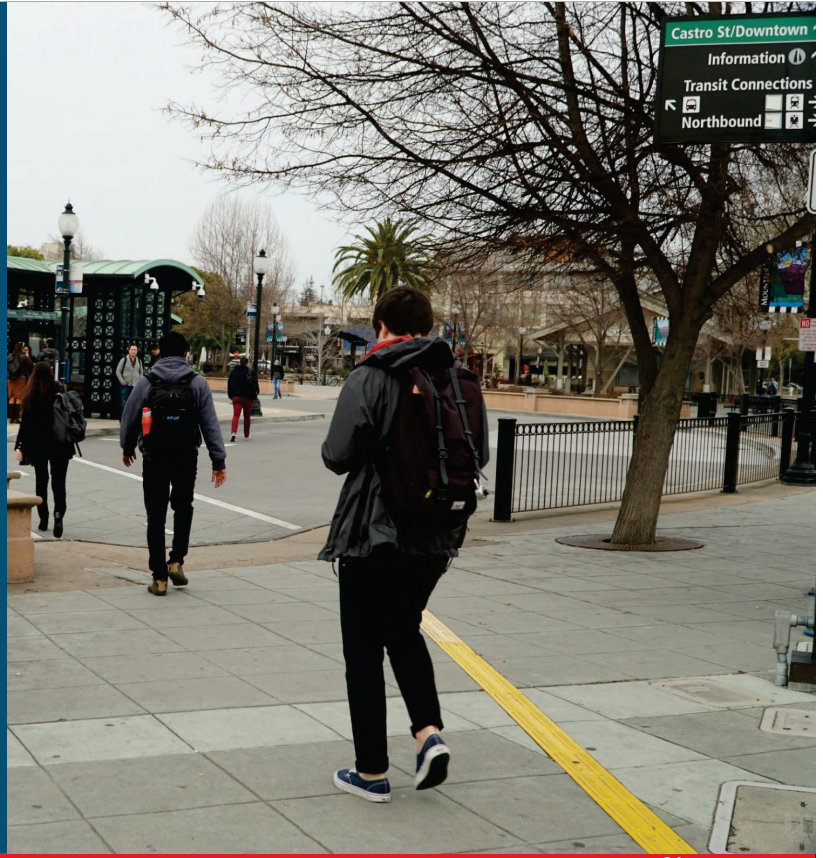


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# Walking & Bicycling Conditions

There is substantial need to invest in offsite and onsite bicycle and pedestrian access to stations. However, offsite improvements are outside of Caltrain's jurisdiction and rely on City-led decisions and processes.

This section will focus on onsite improvements to bike parking and pedestrian circulation.



# Wayside Bike Parking and Bike Sharing are Critical to Expanding Bike Access

## **Onboard bike demand will exceed capacity in the short- and long-term**

Caltrain has provided significant on-board capacity within its system, but expanding onboard bike capacity beyond the commitments already made by the JPB will limit overall passenger capacity, exacerbating crowding issues

## **Improvements to wayside bike parking and shared bikes/scooters show promise to scale access**

A \$4M investment in bike parking is underway and will be used to fund improved bike parking, including e-lockers

4% of San Francisco and San Jose passengers use shared bikes or scooters to access Caltrain – a total expected to grow with the recent reintroduction of shared e-bikes

Investing in shared bike stations present an opportunity to scale capacity over time

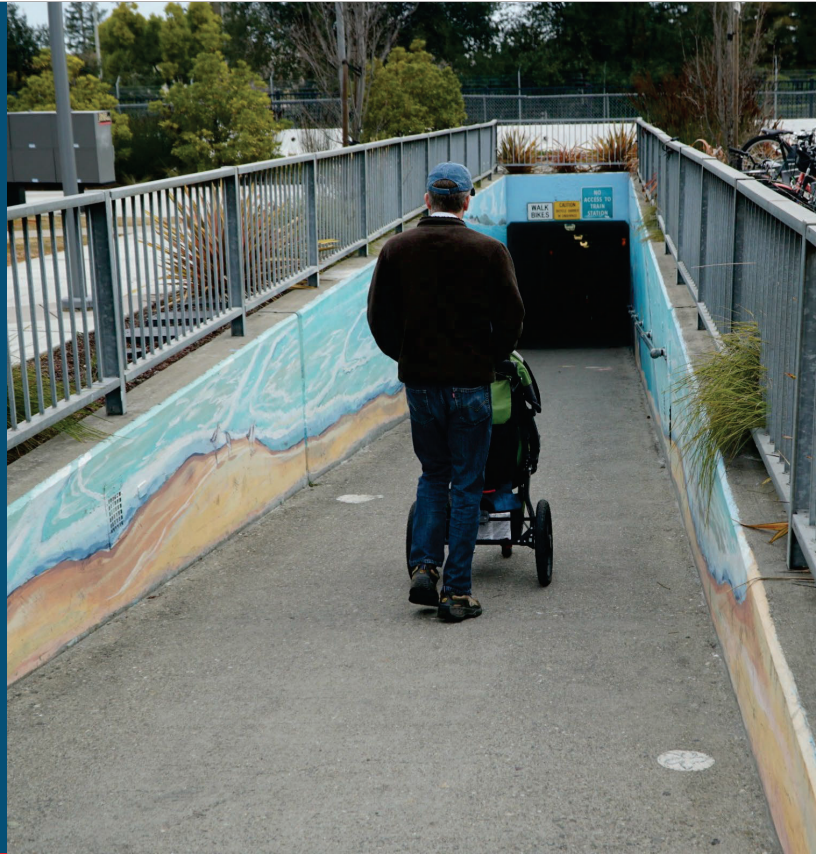


# Pedestrian Facilities Need Improvement

Caltrain stations need to prioritize pedestrians to handle expanded passenger volumes at stations

Most stations will need programmatic investments to accommodate increased ridership, improve onsite circulation, and reduce conflicts between modes

Major stations may need focused design efforts to handle increased volumes, particularly in the context of grade separations and joint development projects



# Station Upgrades Needed to Accommodate Increased Ridership

## Examples of upgrades needed to accommodate increased ridership



Expanded Shelters to offer shade and weather protection



Strategically located Clipper readers at station entrances and along platforms



Clipper-integrated ticket machines (coming soon to most stations)



Level boarding



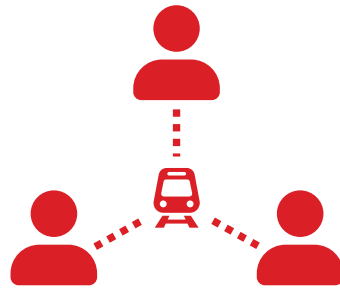
Improved Wayfinding and Signage



More Pedestrian-scale lighting

# Strong Growth Predicted in Ridership and Station Use by 2040

Under the Long Range Service Vision adopted by the Caltrain Board, ridership is projected to triple from today's levels. This will mean significant changes to the way that people access the Caltrain system



**+120,000**  
Passengers Traveling to and from Caltrain

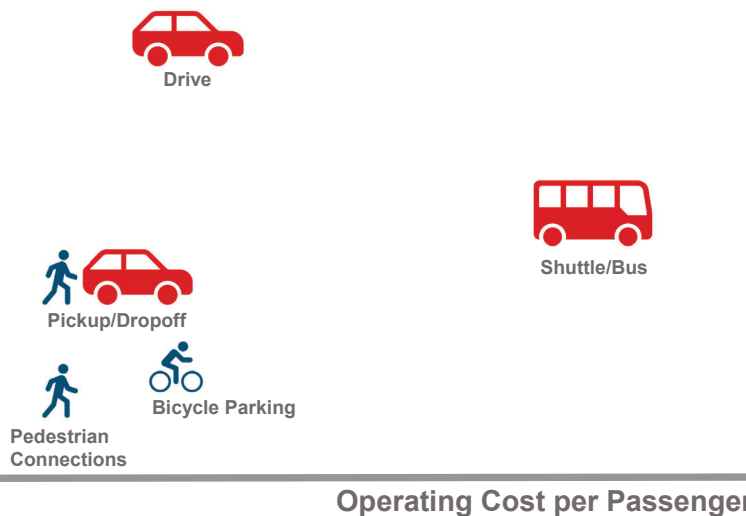


**10X**  
Growth in use for some stations compared to today



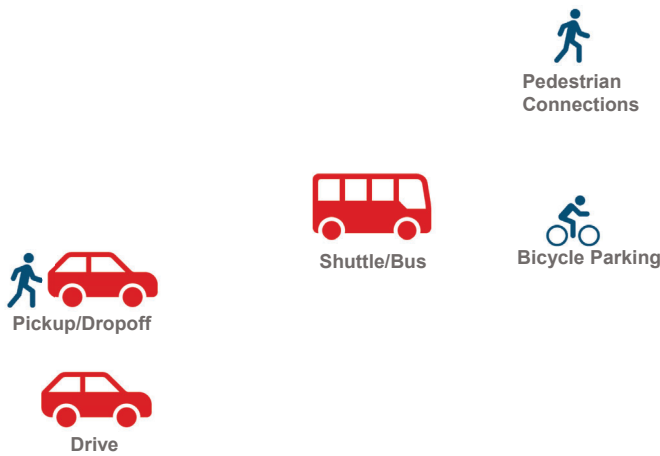
# Making improvements to enhance walking, biking, and passenger loading are the least costly access investments

Capital Cost per Passenger



# Walking and biking are also the most scalable/sustainable access modes

Scalability to Accommodate Demand



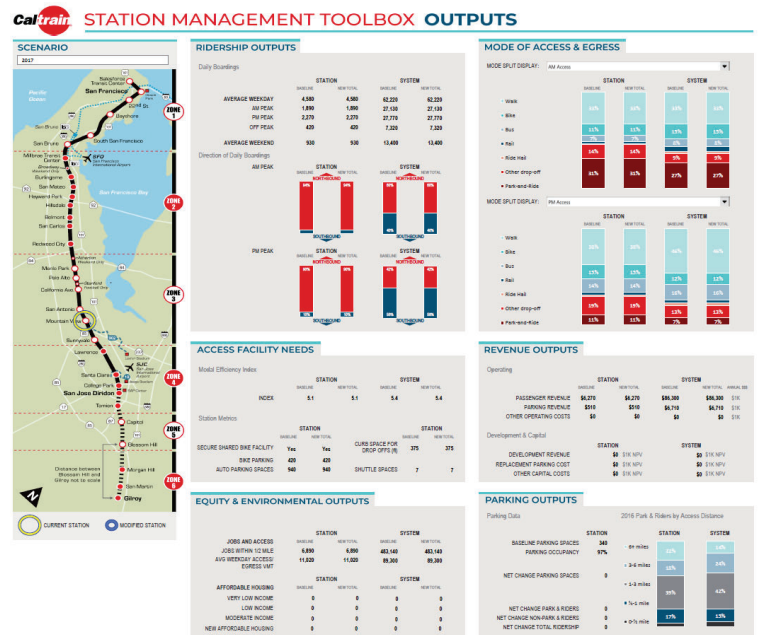
Sustainability



# Caltrain Station Management Toolbox

Caltrain received a grant from the Federal Transit Administration to develop a tool to analyze the effects of access investments and joint development for Caltrain

Based on this analysis, Caltrain developed a Station Management Toolbox for staff use to evaluate individual and system wide changes – this tool has been updated to support the Business Plan analysis



# Three Alternative Access Improvement Scenarios Explored

## 1: Ad-Hoc Approach

- Investments and programs occur as funding becomes available- similar to today
- Investments and programs are mostly led by entities other than Caltrain
- Caltrain is mostly agnostic to the types of investments that occur

## 2: Expand Parking Supply

- Investments and programs focus on growing parking supply in proportion to ridership
- Caltrain organization becomes more proactive in building new parking garages including land acquisition as needed

## 3: Prioritize Non-Auto Access and Joint Development

- Investments and programs emphasize modes other than park-and-ride
- Caltrain organization becomes more proactive in shuttles, service integration, pedestrian/bicycle infrastructure, and TOD



# Analysis Assumptions Drive Results

## The Following Assumptions Were Used in This Scenario Analysis:

### 1: Ad-Hoc Approach

- 1.5x increase in parking supply
- No change to shuttle services
- Moderate improvement to bike/ped access
- Moderate development intensity at feasible sites with all parking replaced
- New parking assumed to cost \$75,000 per space due to garage and parking replacement costs

### 2: Expand Parking Supply

- 3x increase in parking supply
- No change to shuttle services
- Minimal improvement to bike/ped access
- No new joint development
- New parking assumed to cost \$100,000 per space due to garage, parking replacement, and land acquisition costs

### 3: Prioritize Non-Auto Access and Joint Development

- No new parking supply
- 3x increase in shuttles service
- Substantial improvement to bike/ped access
- High intensity development at all sites without replacement parking

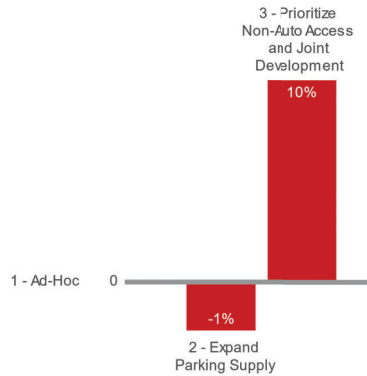


# Change in Ridership & Mode of Access through 2040

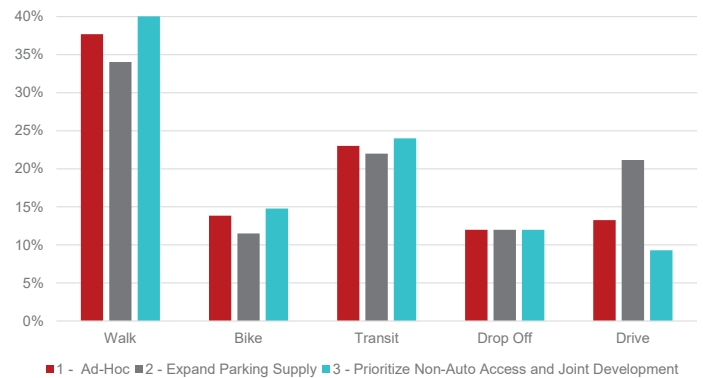
Prioritizing park-and-ride access shifts more passengers to driving but results in *lower* ridership than investing in other modes.

Maximizing joint development, active transportation, and transit access results in *higher* ridership and less driving.

Change in Ridership



Change in Mode of Access

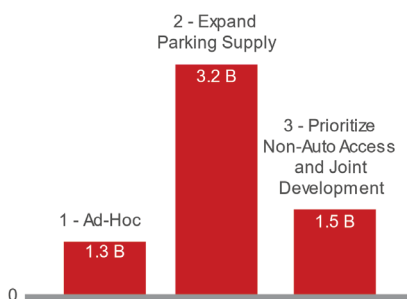


# Change in Costs & Revenues

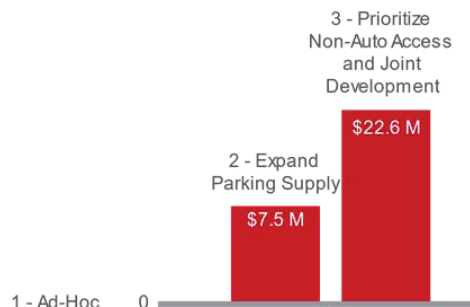
Tripling parking supply could cost double that of investing in non-auto modes.

Expanding access for non-auto modes more than triples the revenue generated by expanded parking supply.

Approximate Cost over 50 Years



Approximate Additional Annual Revenue



# Station Access Results Present a Variety of Policy Questions



## Is More Parking Worth the Investment?

- Parking garages are costly (analysis assumed \$100,000 per new space including replacement parking and land acquisition)
- Building new garages may come at the expense of housing and office TOD
- Increasing parking supply is less effective in supporting ridership growth than investments in other modes



## How Should Caltrain Address Shuttle and Bus Connections?

- There is substantial demand to scale shuttle/bus service to match growth of Caltrain service and development
- However, organizational and operational challenges may limit the potential for expansion
- Ongoing operational subsidies are high



## What is Caltrain's Role in Bike/Ped Access?

- Improving bicycle parking and shared use at stations represents a key opportunity to accommodate long-term ridership growth
- Addressing offsite barriers to pedestrian and bicycle access are necessary to accommodate ridership growth, but these areas are typically outside Caltrain's jurisdiction

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# Equity Assessment

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# Why Focus on Equity?

The equity assessment is intended to help Caltrain understand how it can improve equity within its system- both in the near term and as the Service Vision is implemented over time.

## Caltrain is Focusing on Equity for Multiple Reasons

- Stakeholder and Policy maker feedback through the Business Plan and other Caltrain undertakings have made it clear that equity is an important priority for the system
- Caltrain is planning to grow. The Long Range Service Vision calls for tripling the system's ridership. To do this, we want our service to be an accessible, useful and attractive choice for all members of our community
- Caltrain will need public investment to achieve its vision. Focusing on equity helps ensure that we deliver benefits and value to all members of the public



# Equity Assessment Work Plan

The equity assessment is intended to help Caltrain understand how the Service Vision could improve equitable access to Caltrain and develop a series of policy interventions that would improve equitable access over time.



## Opportunities & Challenges

- Review of existing plans
- Stakeholder interviews
- Market assessment



## Analysis of the Service Vision

- Qualitative & quantitative evaluation of the Service Vision (will be presented in April)



## Recommendations

- Context-specific recommendations developed from the analysis of the Service Vision and opportunities and challenges (will be presented in April)



# Existing Plans Review

1. Bayview Community Based Transportation Plan (2019)
2. Redwood City Citywide Transportation Plan (2018)
3. Moving San Mateo County Forward: Housing and Transit at a Crossroads (2018)
4. San Bruno/South San Francisco Community-Based Transportation Plan (2012)
5. San Mateo County Transportation Plan for Low-Income Populations (2012)
6. East Palo Alto Community-Based Transportation Plan (2004)
7. Community-Based Transportation Plan for East San Jose (2009)
8. Community-Based Transportation Plan for Gilroy (2006)
9. Equitable Access to Caltrain: Mapping and Scheduling Analysis (2019)

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## Stakeholder Engagement

To better understand existing barriers for disadvantaged riders and residents in the corridor, surveys were sent to community-based organizations along the corridor. Representatives who wanted to provide more feedback were interviewed in person or over the phone.



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Community Stakeholder Survey Responses



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In-Person Community Stakeholder Interviews - 2 in each Caltrain county



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Community Stakeholder Phone Interviews

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### Better Service For Nontraditional Work Schedules And Non-work Trips

Currently, Caltrain is focused on traditional commute hours, whereas low-income and vulnerable populations are more likely to have commutes that fall outside of these times.

#### Recommendations

- More mid-day, late evening, and early morning service
- Connecting services during non-typical commute times need to be coordinated

### More Frequent Service

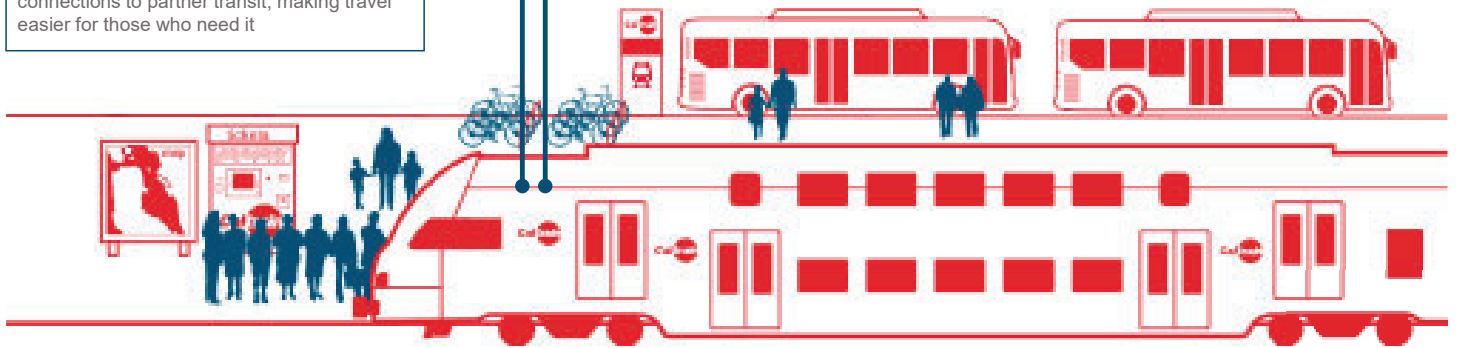
Upgraded service would offer more flexibility and choice to access the corridor and better connections to partner transit, making travel easier for those who need it

### Open Stations In Communities Of Concern

The Bayview neighborhood of San Francisco would like to see the Oakdale station built to replace the Paul Ave station closed in 1999. North Fair Oaks would like to see a local station on either the Caltrain or Dumbarton rail corridor.

# Feedback From Stakeholders

## Service & Stations



### Better Connecting Bus Service

Currently, existing and potential Caltrain riders are poorly served by connecting bus services in San Mateo and Santa Clara Counties

#### Recommendations

- Better scheduling coordination with SamTrans and VTA to reduce the number of bus connections that result in long waits or insufficient (<5 minutes) transfer times
- More frequent connecting bus services to Caltrain stations

# Feedback From Stakeholders

## Station Connections

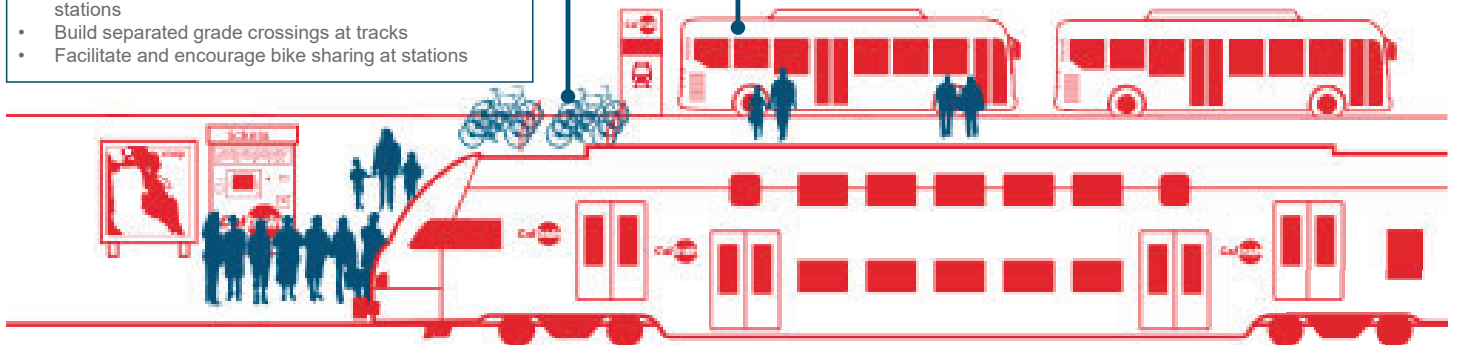


### Better Bike & Pedestrian Connections

Biking and walking are low-cost modes that, if enhanced, could expand access to Caltrain services.

#### Recommendations

- Better bike facilities such as lockers and racks at stations
- Build separated grade crossings at tracks
- Facilitate and encourage bike sharing at stations



# Feedback From Stakeholders

## System Accessibility



### Better Rider Information

The fragmented nature of public transit service in the Bay Area makes it difficult for riders, especially those from marginalized and limited English-proficient backgrounds, to navigate myriad systems and agencies

#### Recommendations

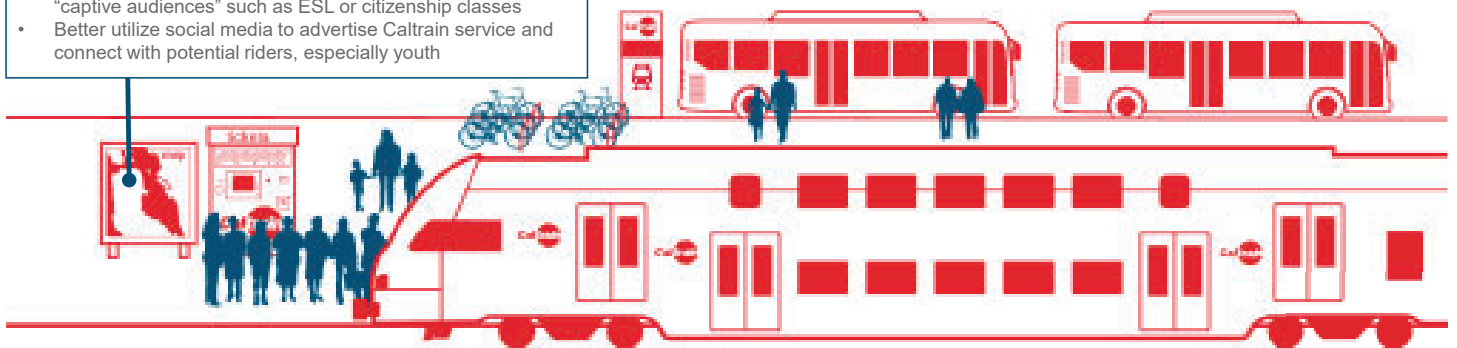
- Area-based maps and schedules that show services from all agencies, ideally in multiple languages
- Conduct outreach to teach people how to ride, perhaps with "captive audiences" such as ESL or citizenship classes
- Better utilize social media to advertise Caltrain service and connect with potential riders, especially youth

### Accessible Station Design

Some Caltrain stations are poorly lit, provide limited access to ADA riders, and feel uninviting to riders

#### Recommendations

- Provide amenities at stations that improve rider experience, such as more lighting, shelter from the elements, and seating
- Implement level boarding at all stations



# Feedback From Stakeholders

## Fares & TOD



### Discounted Fares For Low-income Riders

Currently, Caltrain does not offer discounts for low-income riders and has a significantly lower share of low-income riders compared with other agencies along the corridor (Muni, VTA, and SamTrans)

#### Recommendations

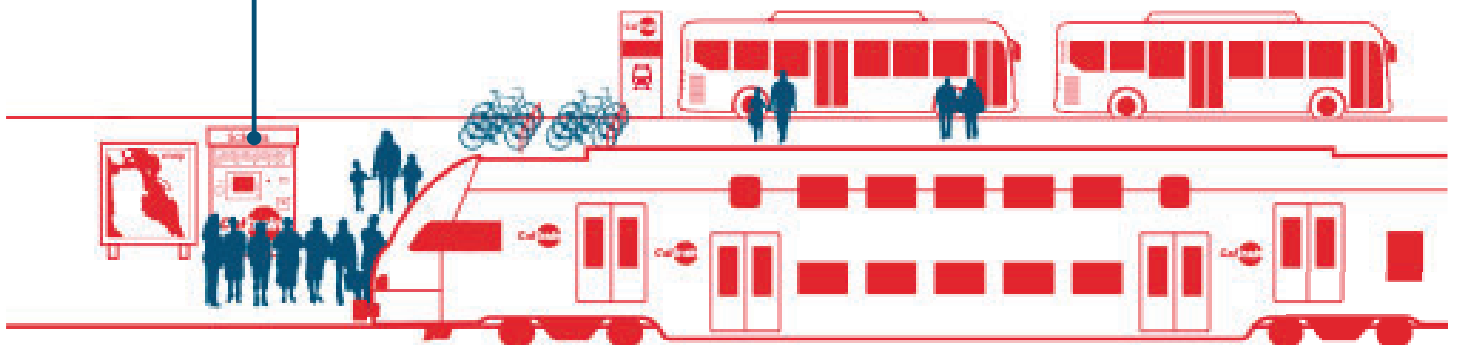
- Offer a reduced fare or subsidy program for low-income riders
- Revisit the zone fare structure to make sure that it is not disincentivizing the use of any connecting bus service

### More Affordable Housing Near Stations

Housing along the Peninsula is becoming increasingly expensive and inaccessible to low-income and transit-dependent households.

#### Recommendation

- Partner with jurisdictions along the corridor to prioritize developing affordable housing and implement anti-displacement or local preference policies near stations



# Equity Assessment Key Questions

The equity assessment will help us to understand how the Service Vision affects equitable access to Caltrain and will identify a series of potential policy interventions that could improve equitable access further

1. Does Caltrain ridership reflect corridor communities?

Tool: census and on-board survey data

2. Do the travel patterns of lower income and minority communities reduce their likelihood of using Caltrain?

Tool: Census Transportation Planning Products data

3. What policy levers could Caltrain shift to increase ridership from low income and minority communities?

Tool: Review of fare structure and service plans, stakeholder interviews, plan review



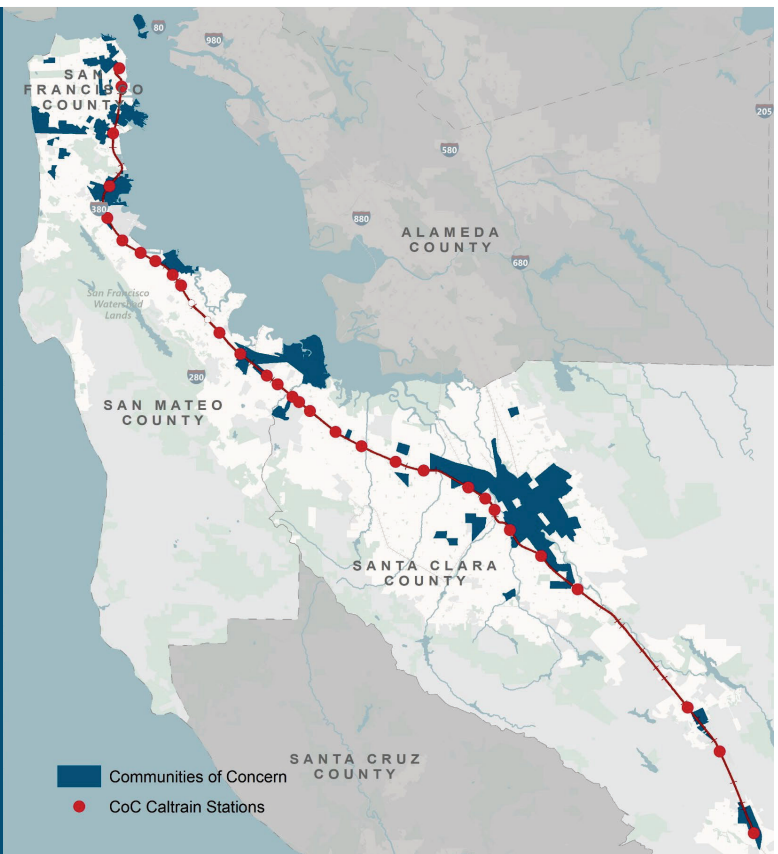
# The Corridor is Diverse

Within a two-mile station area:

**20%** of households are located within an MTC-designated Community of Concern

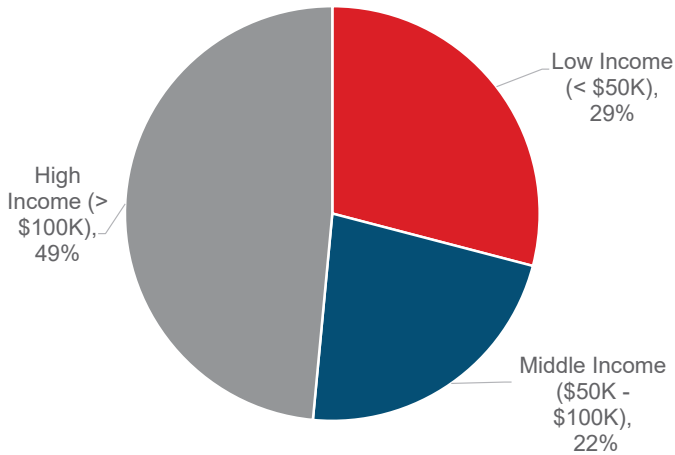
**29%** of households are low income (annual income less than \$50,000)

**63%** of residents identify as a person of color

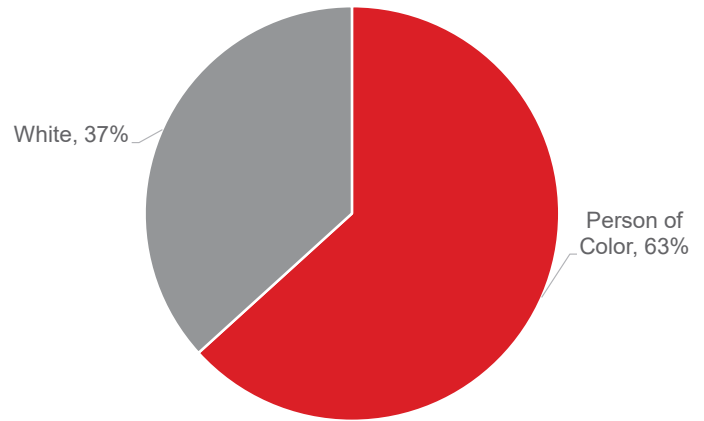


# Residents within 2 Miles

**Household Income**



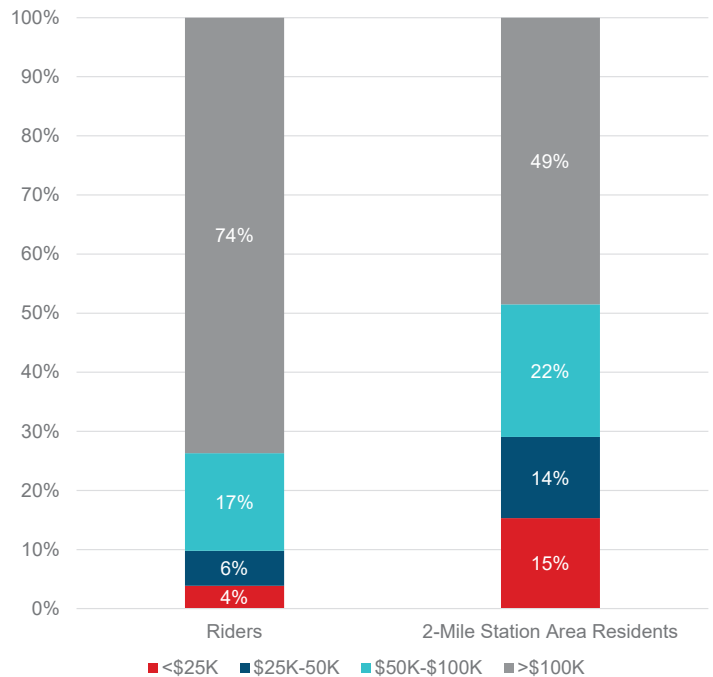
**Race**



Source: U.S. Census, American Community Survey 2017. Low-income defined by MTC as <\$50,000 or <200% of the Federal poverty level; high-income defined as >\$100,000.

## Caltrain Rider Income does not Match that of Corridor Residents

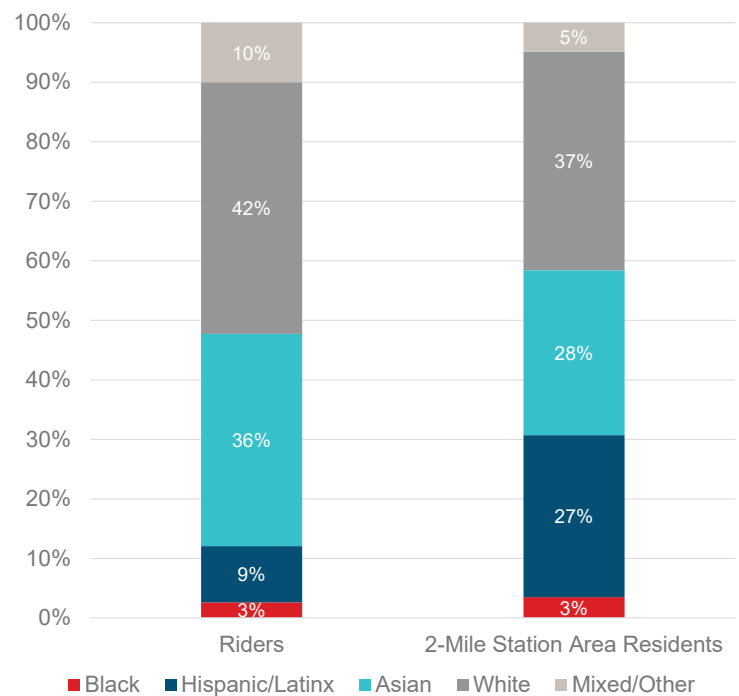
Very-low, low, and middle-income brackets are underrepresented in Caltrain ridership relative to the surrounding corridor



Source: U.S. Census, American Community Survey 2017. 2019 Triennial Caltrain Survey

# Caltrain Rider Race/Ethnicity does not Match that of Corridor Residents

White and Asian neighbors are overrepresented in Caltrain ridership and Latinx neighbors are significantly underrepresented relative to the surrounding corridor



Source: U.S. Census, American Community Survey 2017, 2019 Triennial Caltrain Survey



# Do the Travel Patterns of Lower Income and Minority Communities Reduce their Likelihood of Using Caltrain?

This question is answered by exploring:

- **Commute Trips vs. Non-Commute Trips:** Does trip-making by Caltrain riders and other commuters within the Caltrain corridor vary by income? Do commute travel patterns vary by income?
- **Parallel Transit Routes:** Is there a difference in the way low-income and minority riders travel along parallel transit routes?



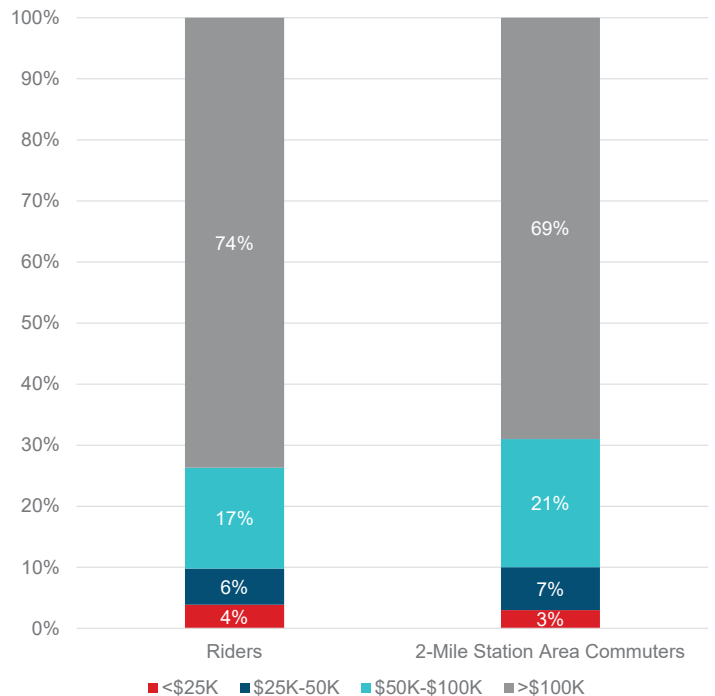
# Commuting in the Corridor

Any work trip that has the work, home, or both trip-ends within 2-miles of a Caltrain station is considered a "corridor commute trip"

Trips that start and end in the same city are excluded



# Caltrain Rider Income Closely Matches Income of Commuters within 2 Miles of the Corridor

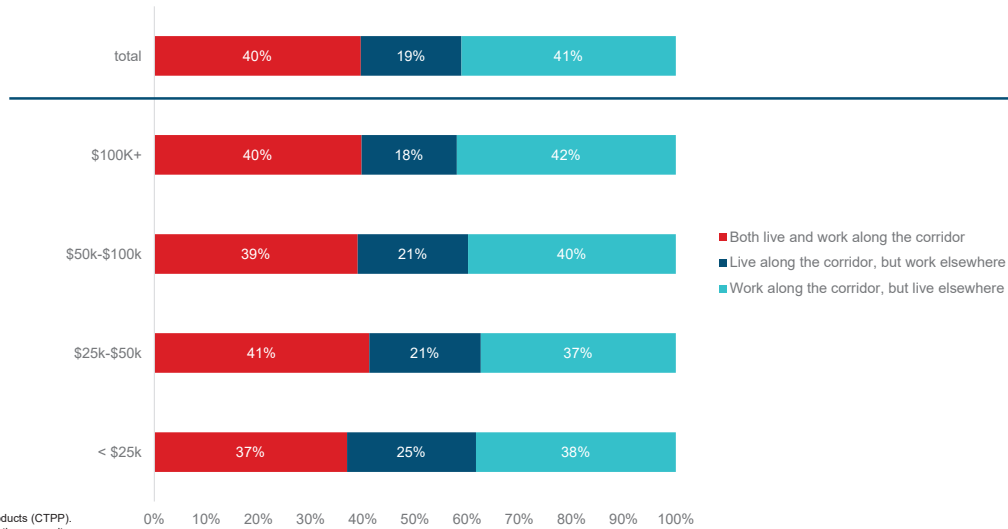


Source: U.S. Census, American Community Survey 2017, 2019 Triennial Caltrain Survey, Census Transportation Planning Products (CTPP). \*Analysis excludes trips that start and end in the same city.



# Low Income Commuters Have Similar Corridor Travel Patterns as Other Income Brackets

Home-based work trips with at least one end within 2-miles of a station

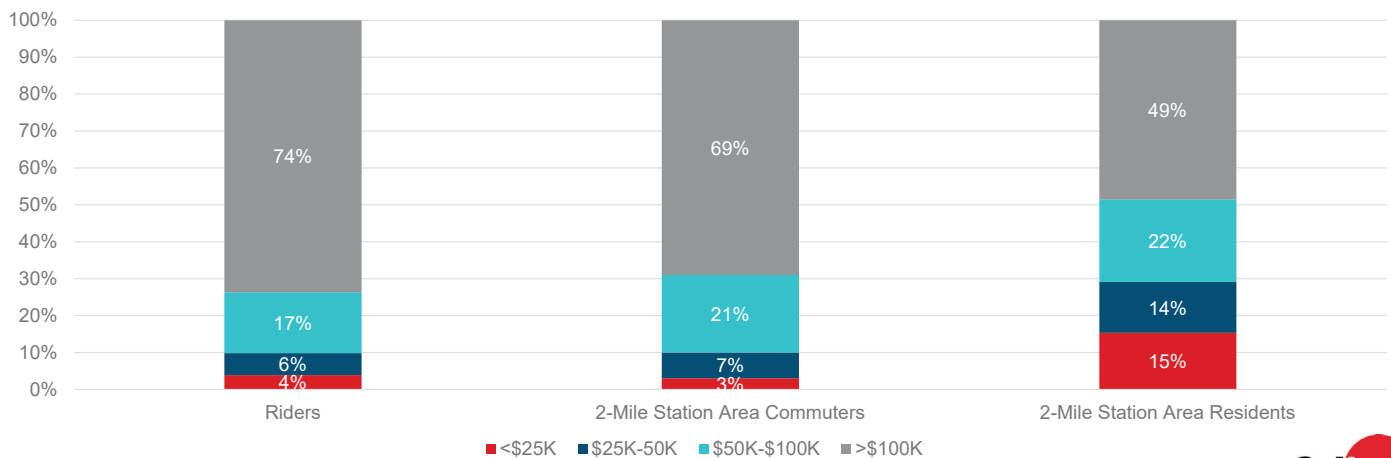


Source: Census Transportation Planning Products (CTPP).  
\*Analysis excludes trips that start and end in the same city.



# Only 10% of Corridor Commuters Are Low Income Despite Being 29% of Residents

Caltrain is underserving non-work trips. This has the greatest impact on low-income populations.



Source: Census Transportation Planning Products (CTPP).  
\*Analysis excludes trips that start and end in the same city.



# Parallel Transit Service

Several alternative transit lines run parallel to the Caltrain corridor. Although service is geographically similar to portions of the Caltrain route, ridership on these routes looks very different than on Caltrain.



- 8, 8AX, 8BX
- 9, 9R
- T-Third Light Rail



- ECR, ECR Rapid
- 292
- 398
- 397 (OWL)

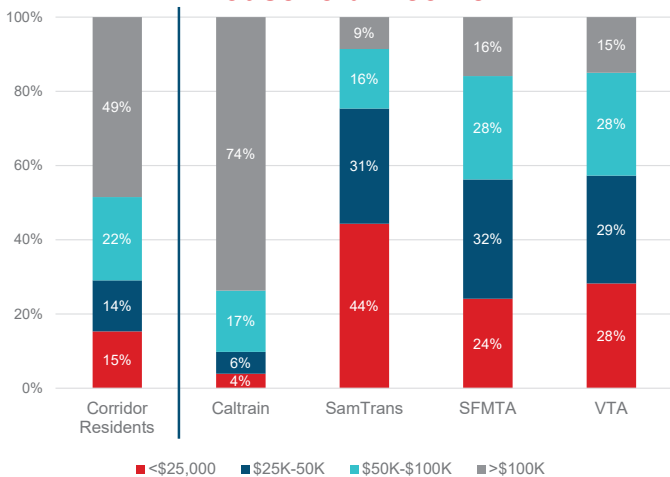


- 22
- 66
- 68
- 102
- 103
- 121
- 122
- 168
- 182
- 185
- 304
- 522

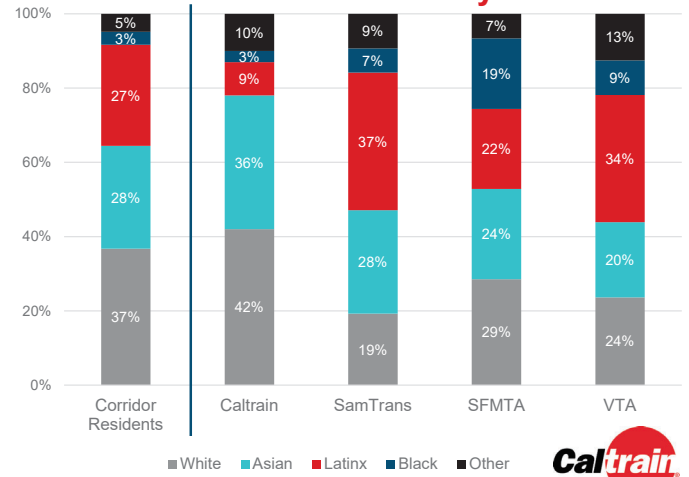


# Parallel Routes Proportionally Serve More Low-Income Riders and People of Color than Caltrain

**Household Income**



**Race/Ethnicity**

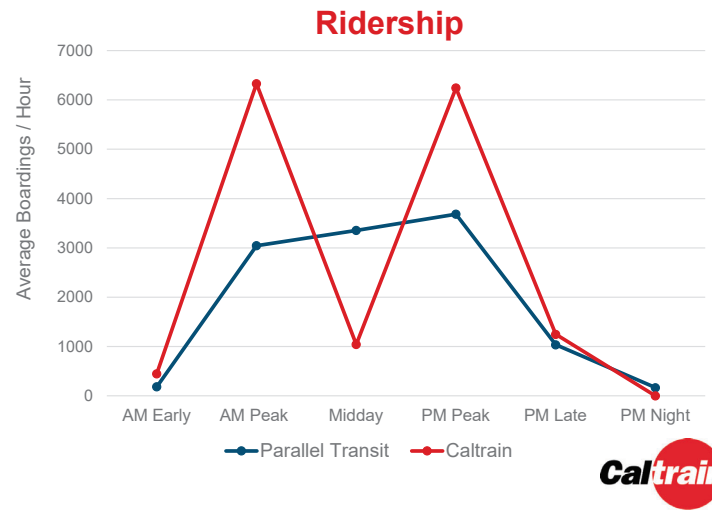
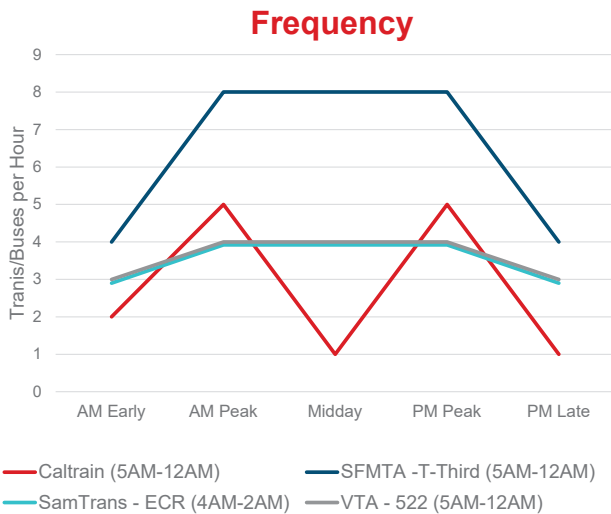


Source: U.S. Census, American Community Survey 2017, Caltrain 2019 Triennial Survey, SamTrans, SFMTA, and VTA on-board surveys.





# Parallel Transit Has More Frequent All-Day Service & Serves More Midday Riders



## Schedule & Frequency

- Caltrain service is concentrated in the peaks with very little service during the early morning, midday, and evening hours
- Parallel transit service runs consistent headways through the peak and midday hours
- Parallel transit service operates in the corridor 24/7
- As a result, off-peak demand is largely served by parallel transit service

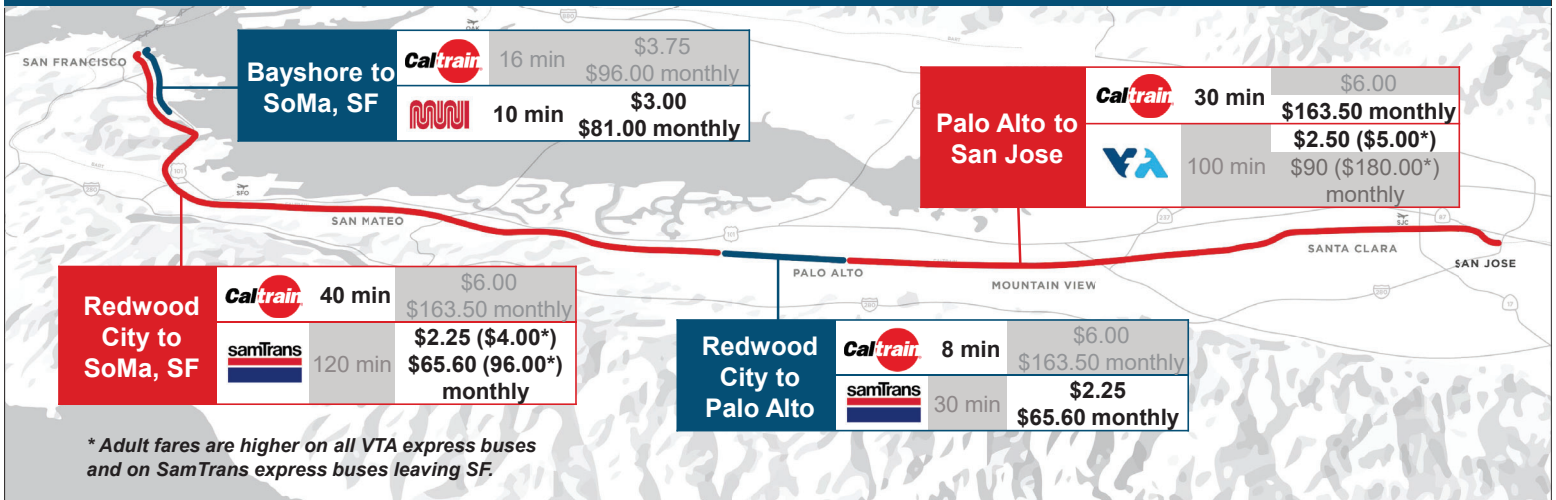


# Comparisons: Travel Time & Cost



Travel Time

- Caltrain is generally faster but more expensive
- Caltrain has a zone-based fare structure: costs increase with distance travelled
- Parallel systems use flat rates with higher fares for express bus services



## Cost & Fare Structure

- Within the corridor, SFMTA currently provides a low-income discount fare option
- Caltrain will begin participating in a means-based fare option through MTC's Clipper START Program (20% discount)
- Caltrain's need to maintain an overall high farebox recovery is driven by its underlying funding constraints

### Discount Programs

Transit Agency	Discount Programs				Approx. Farebox Recovery
	Youth	Senior	Disabled	Low-Income	
Caltrain	✓	✓	✓	20% discount	70%
BART	✓	✓	✓	20% discount starting in 2020	70%
SFMTA	✓	✓	✓	50% discount	25%
SamTrans	✓	✓	✓		15%
VTA	✓	✓	✓		11%

# Discount Pass Programs are More Heavily Used By Middle- and High-Income Riders

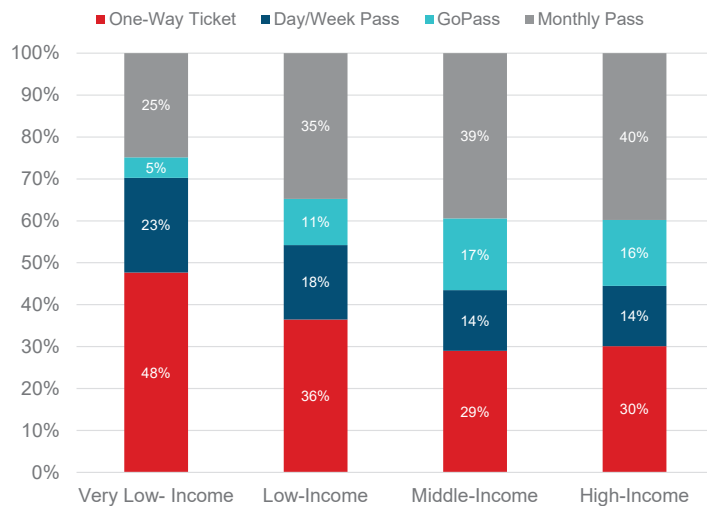
Caltrain's most discounted pass is the GoPass. In October 2016, the average GoPass customer paid \$2.89, versus the non-GoPass customer average of \$5.96.\*

The GoPass and Monthly Pass are the fare payment options with the least use by very-low and low-income riders.

## Household Income and Fare Method



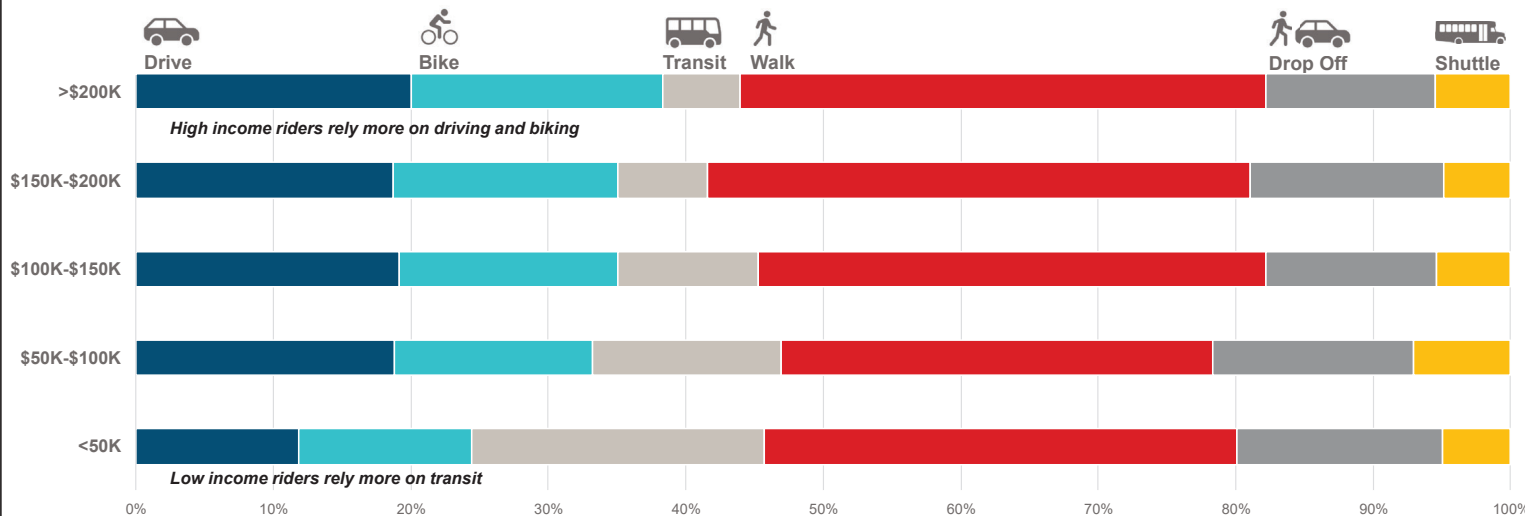
Cost & Fare Structure



Source: Caltrain 2019 Triennial Survey.

# Equity Station Access by Household Income

Data from Caltrain's 2019 Triennial Survey



# Fares & Station Access



Access

A higher share (25%) of Very Low-Income riders take transit to access the Caltrain system – more than any other income group

- Bus to Caltrain fare transfers are not offered
- Some Caltrain Monthly Pass holders receive a discounted bus fare when transferring from Caltrain\*

Very-low income riders are the least likely of all income groups to use a Monthly Pass.

*\* Muni provides a 50-cent discount to all Caltrain transfers who use Clipper.*

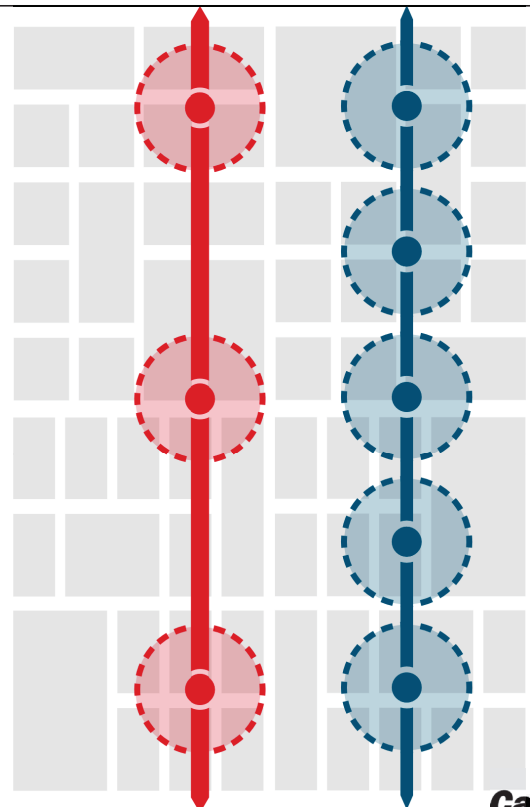


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Access

- Buses and light rail provide more frequent stop spacing, which means easier access to destinations and transfers
- Because Caltrain is unable to easily add more stations, Caltrain can utilize station access policy and time transfers with other transit services to facilitate ease of access



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# What Policy Considerations Can Caltrain Explore to Increase Ridership from Low-Income Communities?

## Caltrain could attract more low-income riders by:

- Expanding service during off-peak hours and non-traditional commute times
- Offering low-income fare products. Caltrain has committed to piloting low-income fare products starting this year as part of the regional MTC SMART program launch
- Evolving and simplifying fare structure so that discounts and transfer benefits accrue equitably to all types of riders
- Expanding and investing in first- and last-mile access that benefits all types of trips and people with a focus on Communities of Concern that have expressed a desire for better station access such as Bayview in SF and North Fair Oaks in San Mateo County



# Analysis of the Long Range Service Vision

This analysis of the Long Range Service Vision will include qualitative and quantitative factors – it will focus on illuminating how Caltrain’s achievement of the Vision can help equity and will highlight areas where extra focus or reinforcing policies may be needed

*Themes in blue are the focus for the evaluation of the service vision. Themes in gray may arise during conversations with stakeholders and will potentially be used to guide policy recommendations.*

Evaluation Framework	
Key Questions	Measure Themes
<b>How does Caltrain provide service?</b>	Infrastructure Quality
	Fare Structure+
	Transit service (service planning)*
	Network Completeness
<b>Who benefits or is burdened from those services?</b>	Station Access
	Affordability*
	Safety
	User Perceptions
<b>How does Caltrain impact surrounding land use?</b>	Distribution of Construction/Supportive Infrastructure
	Displacement Risk*
	Equitable TOD
	Environmental Impacts*
<b>How are decisions made?</b>	Accessibility of Destinations*
	Stakeholder Representation
	Distribution of Funding
	Quality of Engagement

(MTC Equity Focus Area)\*; (Title VI Equity Focus Area)\*



**FOR MORE INFORMATION**

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