




# 2017 Annual Passenger Counts

TA Board of Directors  
June 1, 2017  
Agenda Item #13a

The slide features a red background with a white Caltrain logo in the top left corner. The main title '2017 Annual Passenger Counts' is centered in white. In the bottom right, the meeting details are listed in white text. A faint image of a train is visible in the background.



## Presentation Outline

- Purpose and Count Methodology
- 2017 Challenges
- 2017 Count Results
- Summary
- Next Steps

2

The slide features a white background with a red Caltrain logo in the top left corner. The title 'Presentation Outline' is in bold black text. Below it is a bulleted list of five items. A faint image of a train is visible in the background. The number '2' is in the bottom right corner.



## Purpose of Ridership Counts

- Provide a measurement relative to previous years
- Data for evaluating service changes
  - Identify trends: station, time, train, direction
- Allocate resources to address capacity issues
- Validate revenue-based ridership estimates

3



## Data Collection Methodology

- Headcount on every weekday train averaged over 5 weekdays
- Headcount on every weekend train for one weekend
- Differs from monthly revenue-based average weekday ridership calculations
- Differs from ridership based on randomized samplings for National Transit Database (NTD)
- Sixth year for “bikes denied boarding” count

4



## Challenges

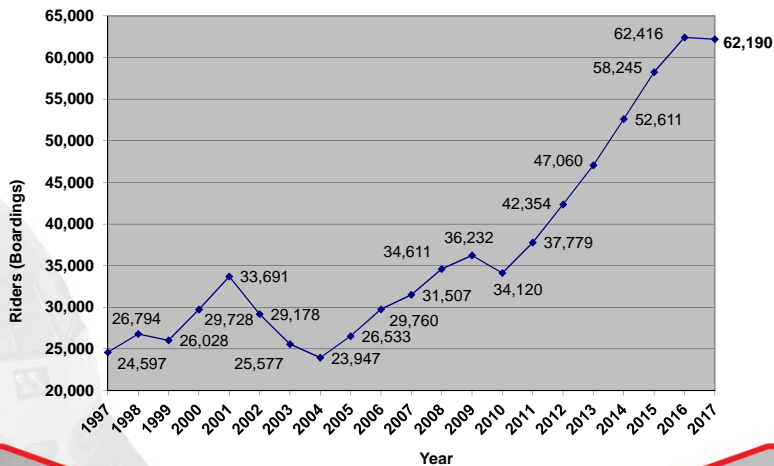
- New consultant & subconsultant team contracted to conduct, oversee & manage field surveys under Rail Operator Contract
- Later start date and end date
- More surveyors required for mixed 5 & 6 car fleet, Gallery vs. Bombardier set
- Increased project costs
- Past winter wettest year on record
- 2017 Weekday & Weekend Timetable Changes Post-Annual Count

5



## Average Weekday Ridership

**-0.4% decrease**



6

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## Riders by Time Period: 2016 vs. 2017

|                         | Feb 2016<br>92 Trains | Feb 2017<br>92 Trains | Difference  | % Change     |
|-------------------------|-----------------------|-----------------------|-------------|--------------|
| <b>Traditional Peak</b> | 31,948                | 32,241                | 293         | 0.9%         |
| <b>Midday</b>           | 7,544                 | 7,388                 | -156        | -2.1%        |
| <b>Reverse Peak</b>     | 19,564                | 19,199                | -365        | -1.9%        |
| <b>Night</b>            | 3,360                 | 3,362                 | 2           | 0.1%         |
| <b>TOTAL</b>            | <b>62,416</b>         | <b>62,190</b>         | <b>-226</b> | <b>-0.4%</b> |

7

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## 2017 Station Ridership

**9 stations increased weekday ridership 2016 vs. 2017**

|               |     |                 |    |              |     |
|---------------|-----|-----------------|----|--------------|-----|
| San Francisco | 451 | Hillsdale       | 1  | Sunnyvale    | 122 |
| South SF      | 30  | Redwood City    | 58 | Lawrence     | 5   |
| Burlingame    | 6   | California Ave. | 41 | College Park | 21  |


**19 stations decreased weekday ridership 2016 vs. 2017**

|                         |       |                  |       |              |      |
|-------------------------|-------|------------------|-------|--------------|------|
| 22 <sup>nd</sup> Street | <19>  | San Carlos       | <148> | Tamien       | <19> |
| Bayshore                | <7>   | Menlo Park       | <55>  | Capitol      | <8>  |
| San Bruno               | <13>  | Palo Alto        | <20>  | Blossom Hill | <18> |
| Millbrae                | <228> | San Antonio      | <37>  | San Martin   | <8>  |
| San Mateo               | <76>  | Mountain View    | <74>  | Gilroy       | <5>  |
| Hayward Park            | <48>  | Santa Clara      | <71>  |              |      |
| Belmont                 | <57>  | San Jose Diridon | <50>  |              |      |

**1 station no change in weekday ridership 2016 vs. 2017**

|             |   |
|-------------|---|
| Morgan Hill | 0 |
|-------------|---|


8



### Top 10 Stations (Weekday Boardings)

| Station          | 2016<br>92 trains |        | 2017<br>92 trains |        | Change<br>In AWR | % AWR<br>Growth |
|------------------|-------------------|--------|-------------------|--------|------------------|-----------------|
|                  | Rank              | AWR    | Rank              | AWR    |                  |                 |
| San Francisco    | 1                 | 14,769 | 1                 | 15,220 | 451              | 3.1%            |
| Palo Alto        | 2                 | 7,424  | 2                 | 7,404  | -20              | -0.3%           |
| San Jose Diridon | 3                 | 4,712  | 3                 | 4,662  | -50              | -1.1%           |
| Mountain View    | 4                 | 4,659  | 4                 | 4,585  | -74              | -1.6%           |
| Redwood City     | 5                 | 3,814  | 5                 | 3,872  | 58               | 1.5%            |
| Millbrae         | 6                 | 3,606  | 6                 | 3,378  | -228             | -6.3%           |
| Sunnyvale        | 7                 | 3,190  | 7                 | 3,312  | 122              | 3.8%            |
| Hillsdale        | 8                 | 2,958  | 8                 | 2,959  | 1                | 0.03%           |
| San Mateo        | 9                 | 2,179  | 9                 | 2,103  | -76              | -3.5%           |
| Menlo Park       | 10                | 1,796  | 10                | 1,740  | -55              | -3.1%           |

9



### County-by-county Comparison

**SF county saw increase in ridership**

| County        | 2016<br>AWR   | 2017<br>AWR   | Change | %<br>Change |
|---------------|---------------|---------------|--------|-------------|
| San Francisco | 16,737        | 17,162        | 425    | 2.5%        |
| San Mateo     | 19,160        | 18,630        | -530   | -2.8%       |
| Santa Clara   | 26,518        | 26,397        | -121   | -0.5%       |
| <b>TOTAL</b>  | <b>62,416</b> | <b>62,190</b> |        |             |

10



## 2017 Top 10 NB Trains: Max Load

| Northbound   |   |          |  |  |
|--------------|---|----------|--|--|
| Train Number | Depart SJ (Post 4/10/17 Timetable Update) | Max Load | Train Seating Capacity (Post 4/10/17 Timetable Update) | Percent of Seated Capacity (Post 4/10/17 Timetable Update) |
| 329          | 8:04 AM                                   | 1054     | 760  | 139%   |
| 319          | 7:04 AM                                   | 1002     | 760  | 132%   |
| 323          | 7:49 AM                                   | 919      | 760  | 121%   |
| 217          | 6:59 AM                                   | 916      | 760  | 121%   |
| 225          | 7:54 AM                                   | 823      | 760  | 108%   |
| 313          | 6:49 AM                                   | 744      | 760  | 98%  |
| 233          | 8:36 AM                                   | 730      | 760  | 96%  |
| 215          | 6:54 AM                                   | 714      | 650  | 110%   |
| <b>AM</b>    |   |          |  |  |
| 269          | 4:40 PM                                   | 820      | 760  | 108%   |
| <b>PM</b>    |   |          |  |  |
| 375          | 5:20 PM                                   | 747      | 760  | 98%  |

11

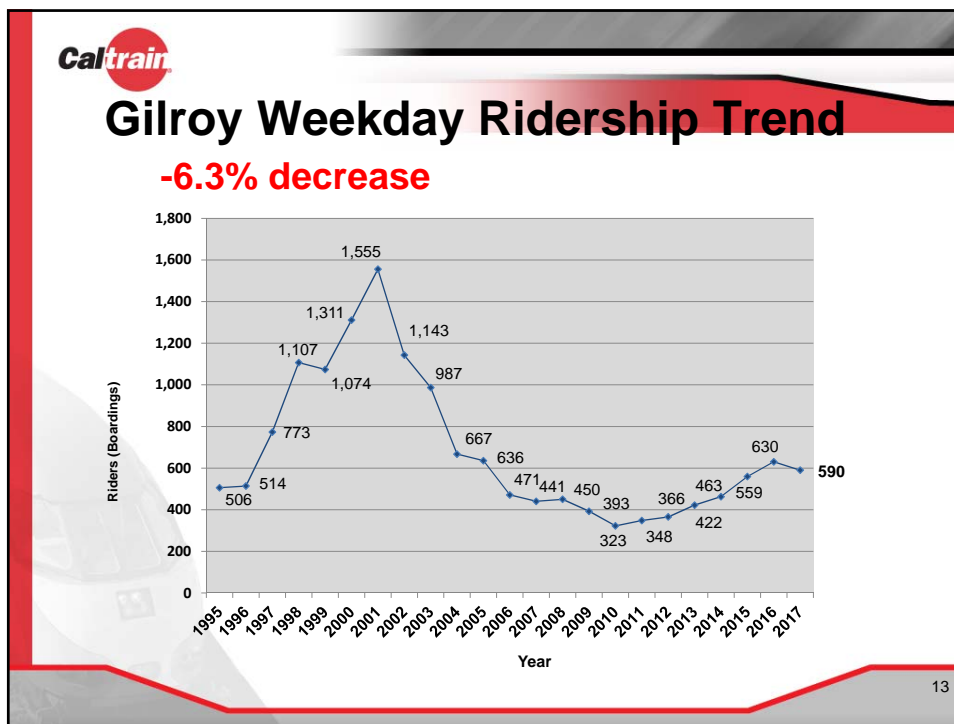


## 2017 Top 10 SB Trains: Max Load

| Southbound   |   |          |  |  |
|--------------|---|----------|--|--|
| Train Number | Depart SF (Post 4/10/17 Timetable Update) | Max Load | Train Seating Capacity (Post 4/10/17 Timetable Update) | Percent of Seated Capacity (Post 4/10/17 Timetable Update) |
| 376          | 5:38 PM                                   | 1027     | 760  | 135%   |
| 366          | 4:38 PM                                   | 986      | 760  | 130%   |
| 278          | 5:58 PM                                   | 869      | 760  | 114%   |
| 370          | 5:16 PM                                   | 830      | 760  | 109%   |
| 272          | 5:27 PM                                   | 785      | 760  | 103%   |
| 268          | 4:58 PM                                   | 782      | 760  | 103%   |
| 380          | 6:16 PM                                   | 714      | 650  | 110%   |
| 258          | 3:34 PM                                   | 710      | 760  | 109%   |
| 360          | 4:12 PM                                   | 681      | 650  | 105%   |
| <b>PM</b>    |   |          |  |  |
| 220*         | 7:35 AM                                   | 686      | 650  | 106%   |
| <b>AM</b>    |   |          |  |  |

\*Post 4/10/17 Timetable Update - Not equivalent train comparison

12



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### Gilroy Extension Ridership\*

- Gilroy extension ridership was declining prior to introduction of Baby Bullet service
  - 2001: 1,555 (highest)
  - 2005: 636 (last year of 4 round trips)
  - 2010: 323 (lowest)
  - 2014: 463 (+41 AWR)
  - 2015: 559 (+96 AWR)
  - 2016: 630 (+71 AWR)
  - 2017: 590 (-40 AWR)
- Ridership decreased -6.3% since last year

\* Numbers represent cumulative ridership for 5 stations

14



## 2017 Riders per Train Type

Peak-period average ridership per train type

| Train Type  | 2016 | 2017  | Percent Change |
|-------------|------|-------|----------------|
| Baby Bullet | 870  | 1,011 | 16.2%          |
| Limited     | 784  | 850   | 8.4%           |
| Local       | 368  | 354   | -3.8%          |

- Growth for Baby Bullet and Limited train travel

15



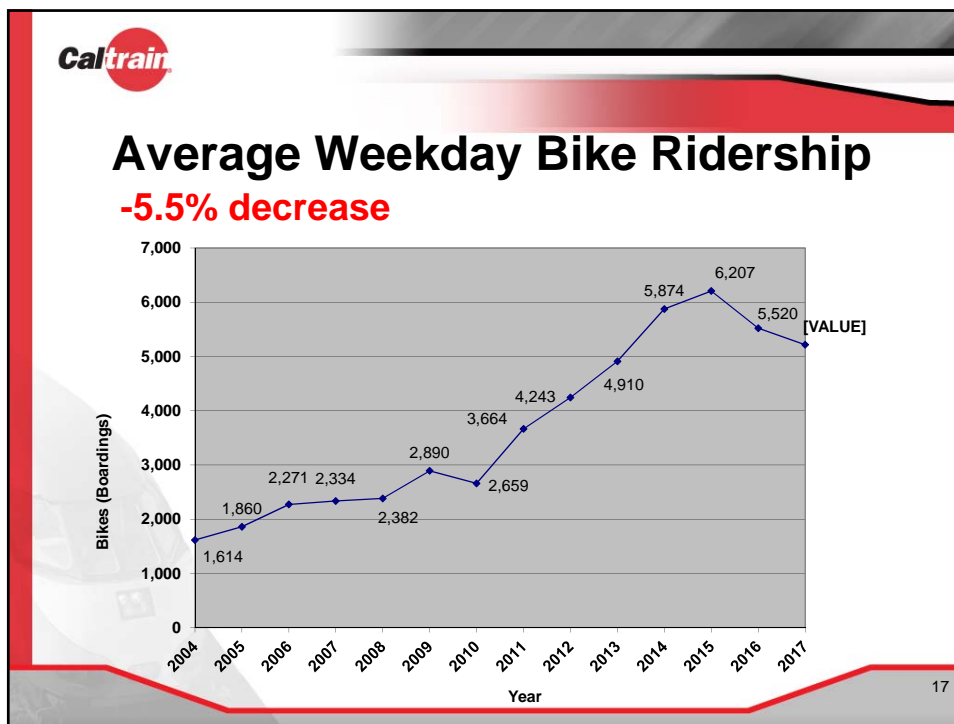
## Average Trip Length

Weekday average trip length for 2017 is slightly higher than 2016

| Train Type           | Average Trip Length (mi) |      |
|----------------------|--------------------------|------|
|                      | 2016                     | 2017 |
| Weekday              | 22.8                     | 23.3 |
| Baby Bullet          | 27.7                     | 28.2 |
| Peak Non-Baby Bullet | 20.5                     | 20.8 |
| Off Peak             | 21.1                     | 21.9 |
| All Locals           | 20.8                     | 21.5 |

16





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### Bicycle Boardings: Top 5 Stations

| Station          | 2016  | 2017  | % change |
|------------------|-------|-------|----------|
| San Francisco    | 1,325 | 1,206 | -9.0%    |
| Palo Alto        | 711   | 725   | 2.0%     |
| Mountain View    | 451   | 453   | 0.4%     |
| Redwood City     | 329   | 328   | -0.3%    |
| San Jose Diridon | 377   | 309   | -18.0%   |

18



## Bikes: Denied Boardings

- Sixth year counted with annual count
- 87 bikes were denied boarding from the 527 trains counted (decrease from 118 in 2016)
- First count conducted after 3<sup>rd</sup> Bike car added to 6-car Bombardier
- Carried approximately 27,369 bikes on the trains counted
- Denied boardings were observed at 11 stations
- Denials on 8 northbound trains and 4 southbound trains

19






## Weekend Service

|              | 2016          | 2017          | Numeric Difference | Percent Change |
|--------------|---------------|---------------|--------------------|----------------|
| Saturday     | 15,003        | 15,612        | 609                | 4.1%           |
| Sunday       | 12,631        | 11,274        | -1,357             | -10.7%         |
| <b>TOTAL</b> | <b>27,634</b> | <b>26,886</b> | <b>-748</b>        | <b>-2.7%</b>   |

### Average Boardings at Weekend-only Stations

|          | 2016 | 2017 | Change |
|----------|------|------|--------|
| Broadway | 157  | 166  | 5.7%   |
| Atherton | 162  | 154  | -4.9%  |

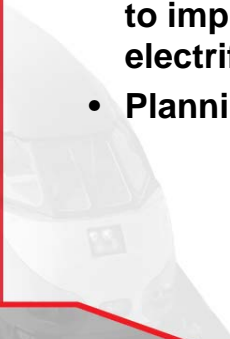


20



## Summary

- Average Weekday Passenger Ridership stayed relatively flat
- No changes in the Top 10 Major stations
- Bike Ridership & Bumps decreased
- Overall Weekend Passenger Ridership decreased

21



## Next Steps

- Review equipment allocation of 6-car trains
- Key Findings Report and ridership data posted by Summer 2017
- Future service planning using ridership data to improve capacity prior to and during electrification construction
- Planning for future Annual Counts Methodology

22