Fare Media Sales-Based Ridership Model

TOPS PRESENTATION
12/20/2023

Caltrain

Ridership Estimation

- Without fare gates or automated passenger counters (APCs), Caltrain does not collect real-time data on the number of passengers it carries

- Data on individual trips are not available for some ticket types and methods of paying for fares ("Fare Media")

- Ridership is a key metric for service planning, fulfilling reporting obligations, and financial analysis

- Annual Ridership Reports:
  - Annual Passenger Count (discontinued when pandemic began)
  - National Transit Database

- Monthly Ridership Reports:
  - Fare media sales-based estimates

Monthly Ridership Data Timeline

2019:
- *Previous Fare Media Sales-Based Model*
  - Fare media sales data calibrated with Annual Count and Triennial Survey data

2020-2023:
- *Temporary Estimation Methodology*
  - Combined limited conductor counts and Clipper usage data

2024:
- *New Fare Media Sales-Based Model*
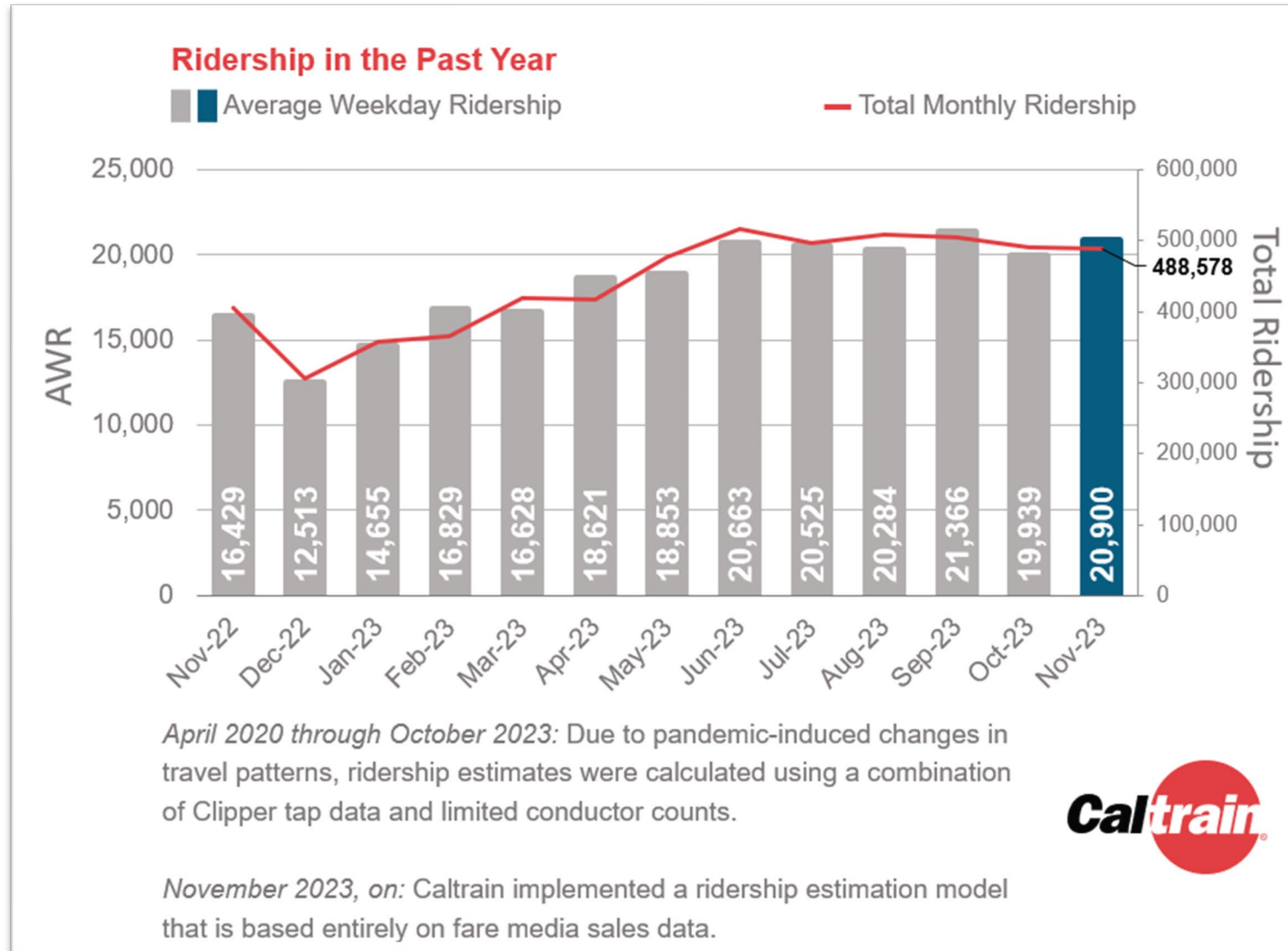 - Uses fare media sales data and simple, data-informed assumptions

2025:
- *New Fare Media Sales-Based Model*
- *EMU APC Counts*
  - Gilroy segment ridership counted by conductors

New Fare Media-Based Estimation Model

- Automated data collection & cleaning reduces data entry errors

- Significant reduction in workload for conductors, as well as TASI and Caltrain staff

- New model went into effect in November 2023, but was not retroactively applied to previous months

- Staff are currently developing ridership dashboards using the new model, to be posted on the Caltrain website

Recent Ridership Reporting from ED Report

Ridership in the Past Year

Legend: Average Weekday Ridership (bars), Total Monthly Ridership (red line)

Month	AWR
Nov-22	16,429
Dec-22	12,513
Jan-23	14,655
Feb-23	16,829
Mar-23	16,628
Apr-23	18,621
May-23	18,853
Jun-23	20,663
Jul-23	20,525
Aug-23	20,284
Sep-23	21,366
Oct-23	19,939
Nov-23	20,900

Total Ridership Nov-23: 488,578

April 2020 through October 2023: Due to pandemic-induced changes in travel patterns, ridership estimates were calculated using a combination of Clipper tap data and limited conductor counts.

November 2023, on: Caltrain implemented a ridership estimation model that is based entirely on fare media sales data.

FOR MORE INFORMATION

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