Massachusetts Bay Transportation Authority

Quarterly Ridership Update

Third Quarter FY19
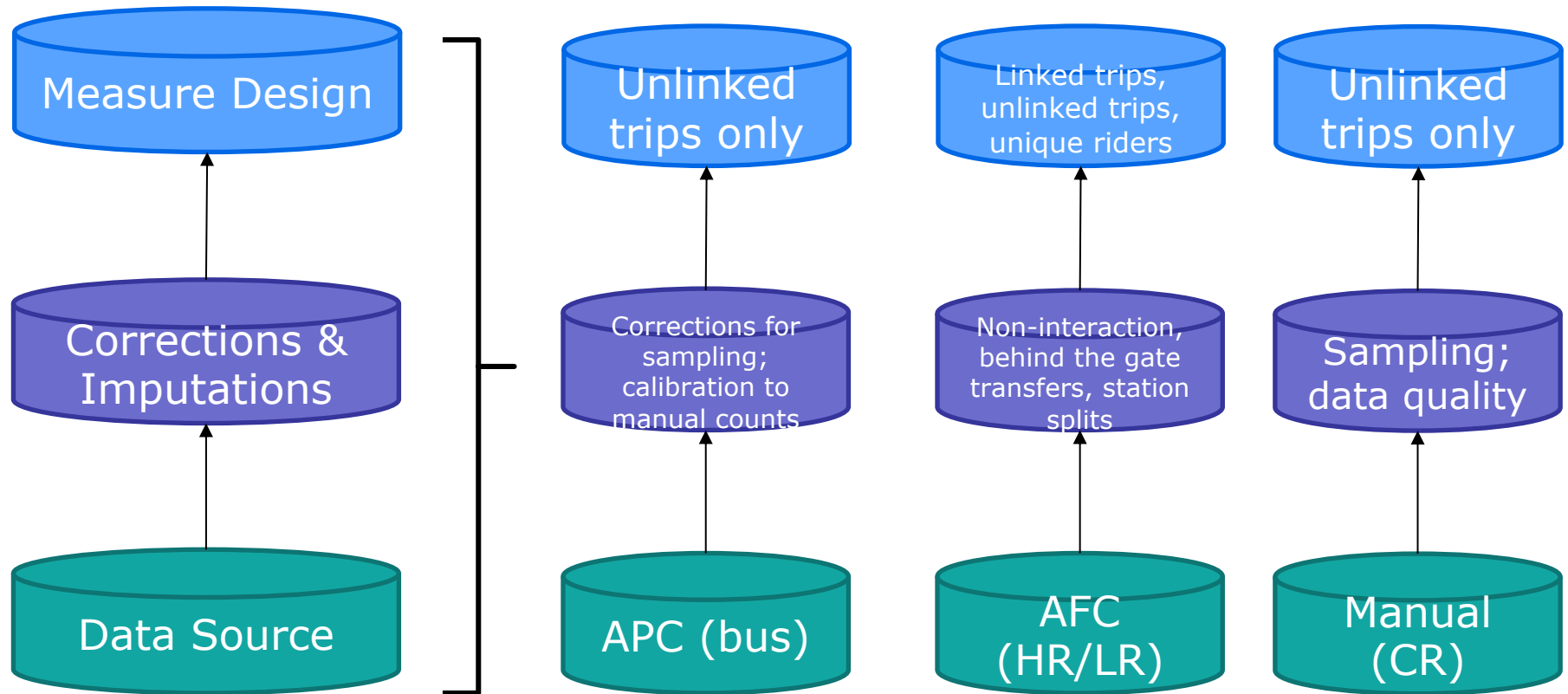
May 20, 2019

Overview

- Background on ridership data
  - Data sources differ by mode: automated fare collection (AFC), automated passenger counters (APC), manual counts
  - Correction factors differ by mode and data source

- Aligning all ridership reporting
  - MBTAbackontrack dashboard
  - National Transit Database
  - Quarterly reports to FMCB

- Quarterly ridership data update
  - Ridership increases on bus and subway

- Ridership reporting going forward
  - Improvements to data sources and factors
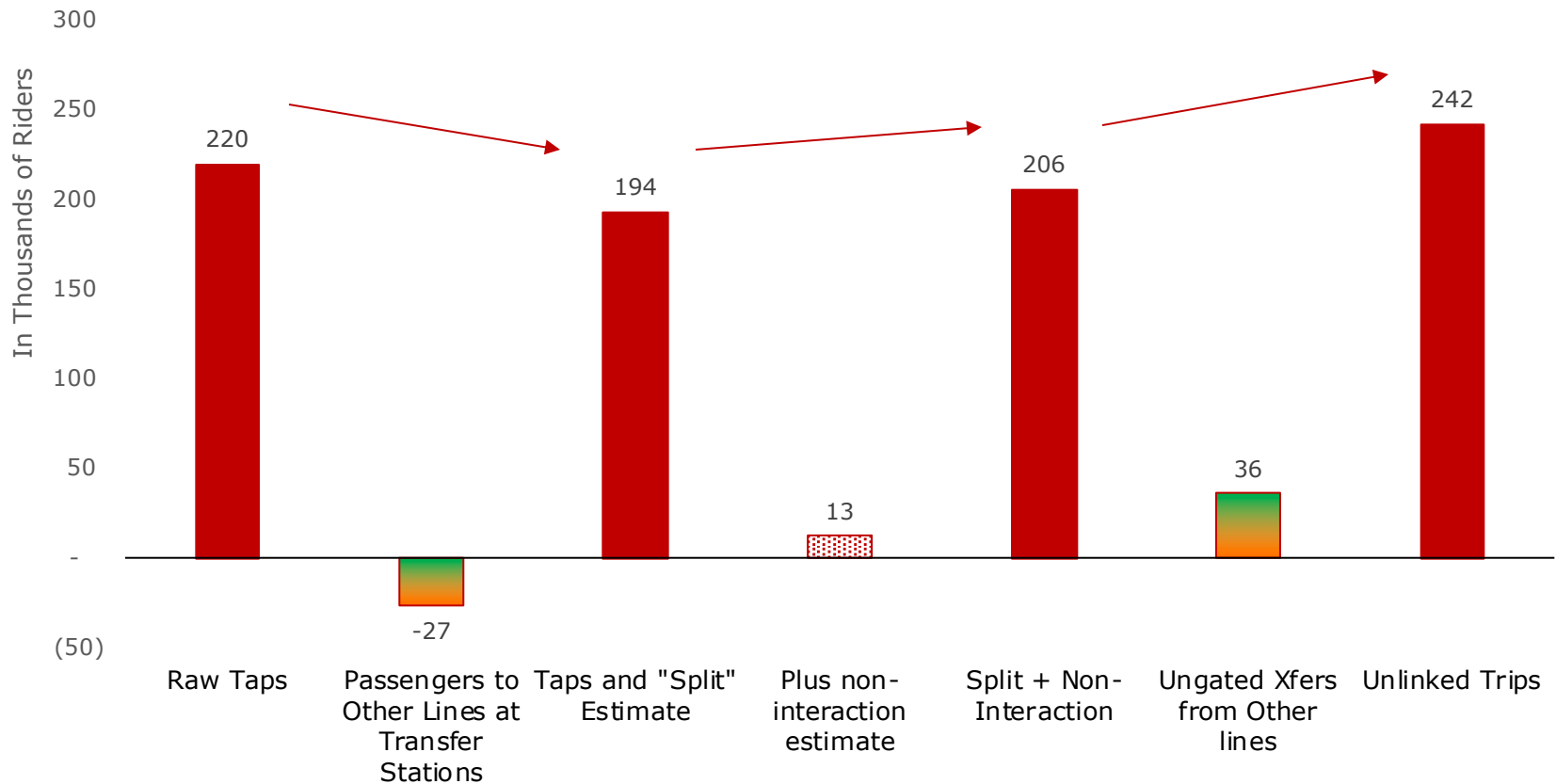
Ridership Estimation Review

How data becomes ridership depends on the source and mode

Measure Design		Unlinked trips only	Linked trips, unlinked trips, unique riders	Unlinked trips only
Corrections & Imputations		Corrections for sampling; calibration to manual counts	Non-interaction, behind the gate transfers, station splits	Sampling; data quality
Data Source		APC (bus)	AFC (HR/LR)	Manual (CR)

Ridership Estimation Example: Red Line

Average Weekday Ridership Calculation, Red Line (March 2019)
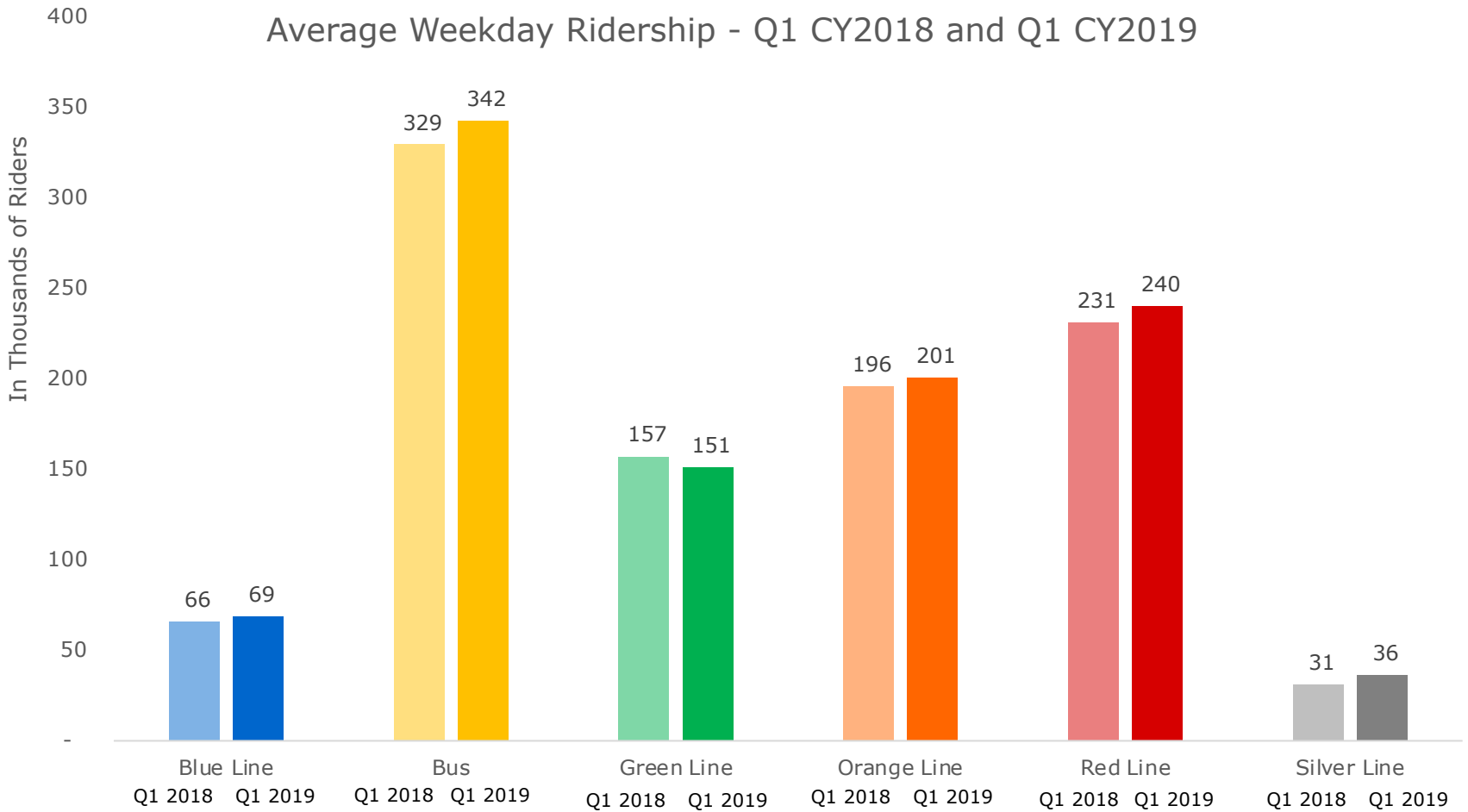
Ridership on www.mbtabackontrack.com

- Reconciling all ridership data sources and scaling factors

- Ridership on the www.mbtabackontrack.com dashboard will be updated with consistent and stable annual scaling factors for missing data, non-interaction, station splits, and behind the gate transfers.

- Dashboard ridership numbers will be reported monthly and available back to January 2016. The updates will be on a one-month lag (June data will be available August 1).

- Underlying data is consistent with data reported to National Transit Database, and summarized as average weekday unlinked trips.
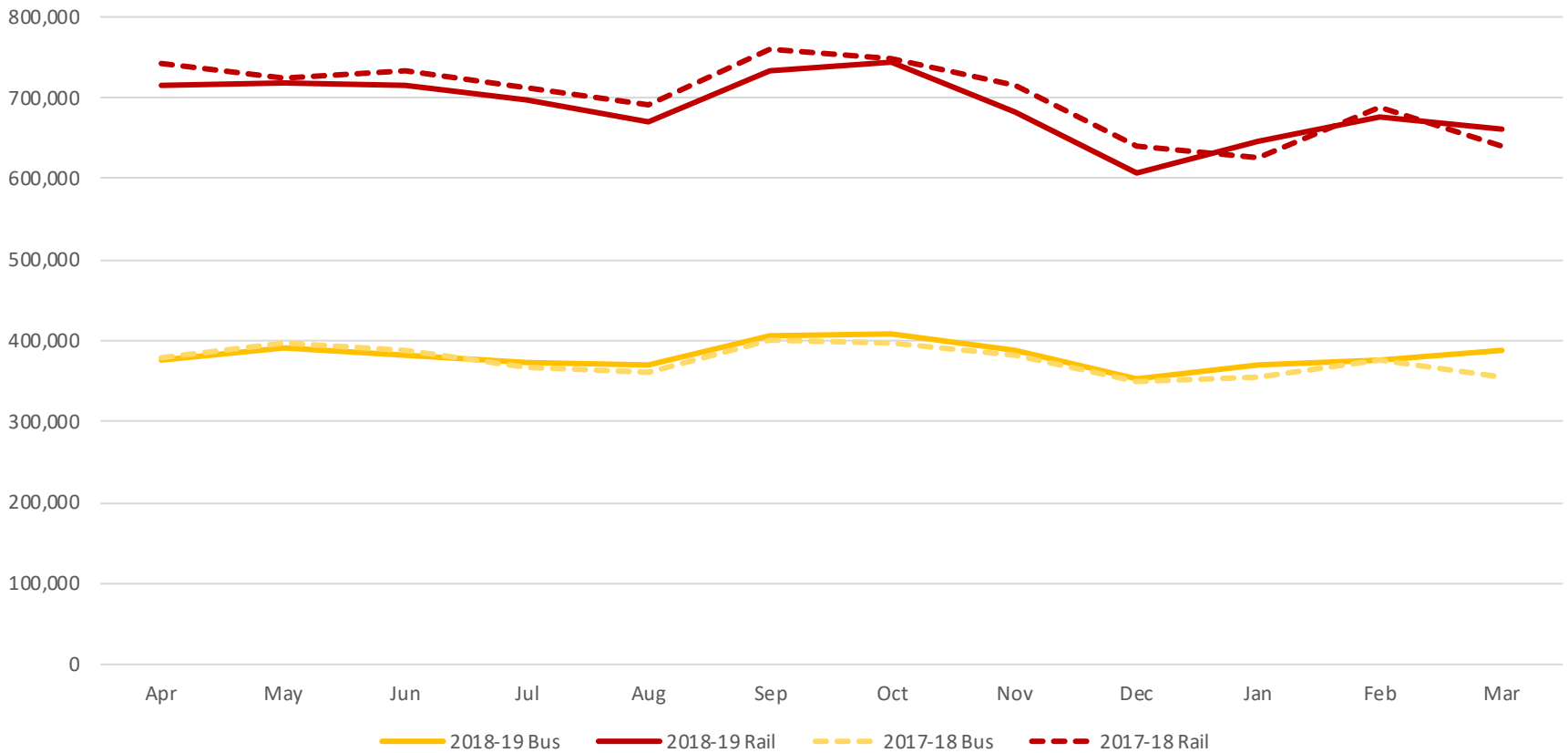
Quarterly Update: Q1 CY2019 vs Q1 CY2018

Average Weekday Ridership - Q1 CY2018 and Q1 CY2019

In Thousands of Riders

	Blue Line	Bus	Green Line	Orange Line	Red Line	Silver Line
Q1 2018	66	329	157	196	231	31
Q1 2019	69	342	151	201	240	36

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Year-Over-Year Comparison

Average Weekday Ridership, By Month, Year-over-Year

Ridership Estimates in the Future

Long-term: Shift all modes to APC in order to more directly measure ridership

- Green Line – new cars will be equipped with APCs; preliminary data collection in progress

- Orange/Red Line – new cars will be equipped with APCs

- Commuter Rail – APCs being installed

When the switch from AFC to APC happens, there will be a methodological break in ridership estimation.

Short-term: Improvements to source data and factors

- Improve underlying AFC data for the AFC-based estimates

- Improve corrective factor methodology
    - Use updated factors for FY2019 National Transit Database submission