

Advanced Service Management (ASM) Pilot

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Advance Service Management Program

Goals:

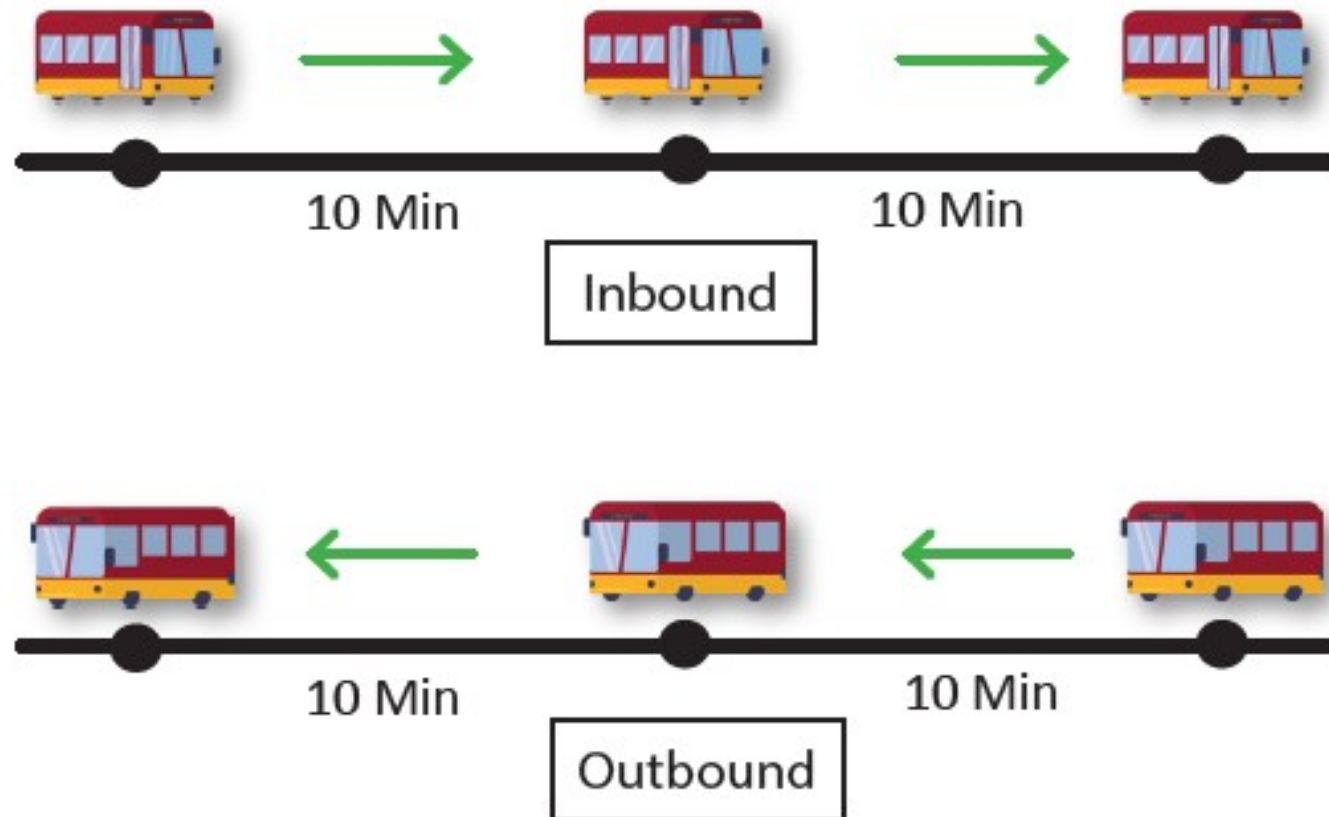
- Improve the customer experience by providing more reliable, less-crowded, and schedule-free service
- Enhance our ability to manage service by revising our business processes and modernizing technology to meet our current and future needs
- Improve the operator experience by providing better breaks and reducing schedule-related stress
- Use our existing fleet, layover space, and base resources more efficiently

Key Milestones:

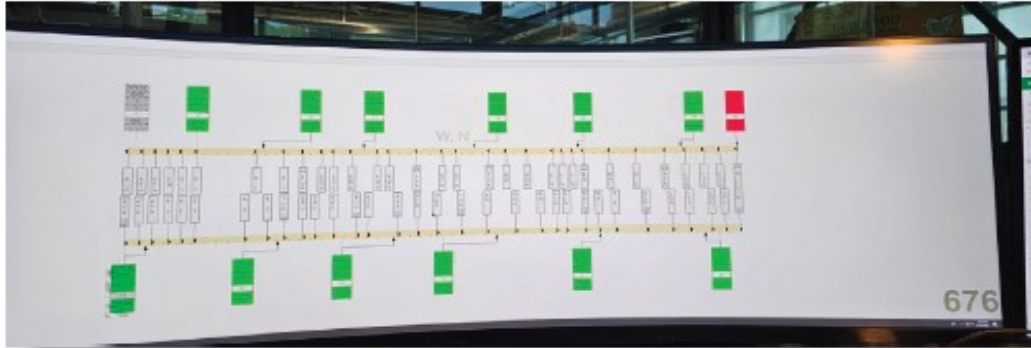
- Launched a year-long pilot on the RapidRide F and RapidRide A lines in Fall 2023.
- To support our operators, ASM also launched the use of a mobile break space in December 2023.
- Launched Courtesy Relief Vehicle in July 2024

What ASM seeks to address

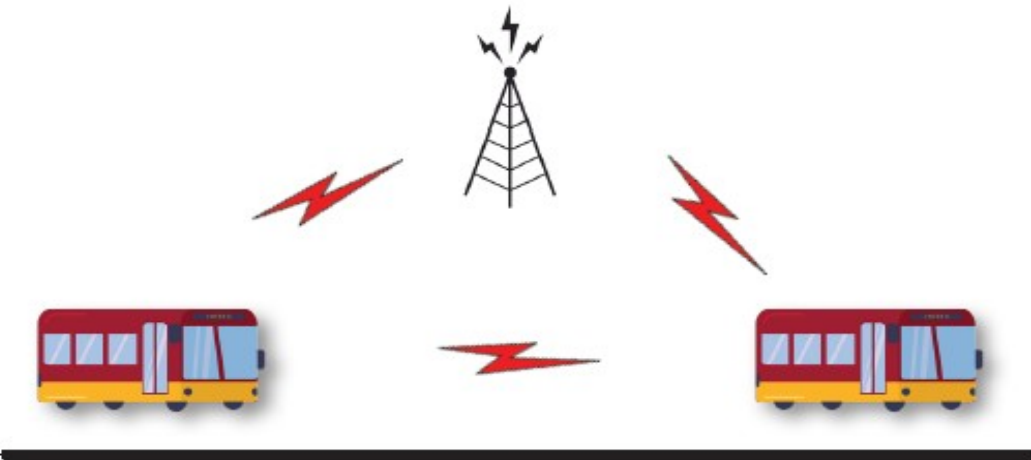
- Eliminate bunching and gapping of buses
- Provide consistent bus service
- Improve the Bus Operator experience



How it Works: Technology + Teamwork



ASM Coordinator view of service along the Route



10/28/22 10:31:18 A9 [RTT] R671/12 HW -06

A | **OUT OF SERVICE**

S 224TH ST [ORCA SYSTEM !)]

11:08 KENT-DESMOINES RD [ON ROUTE]

S 240TH ST [1652 ft]

S 246TH ST [HW -06]

[PRTT] [PA] [Menu] [ORCA] [RTT] [init]

The Team

- **Operators**
- **Cover bus operators**
- **Relief vehicle operators**
- **First line supervisors**
- **Transit control center coordinators**
- **Bus Operations**

Supervisors

- Ensure operators are getting their full break time
- Ensure operators are following instruction from TCC Coordinator and the on-board Driver Display Unit (DDU)
- Monitor and coordinate terminal operations with Transit Control Center

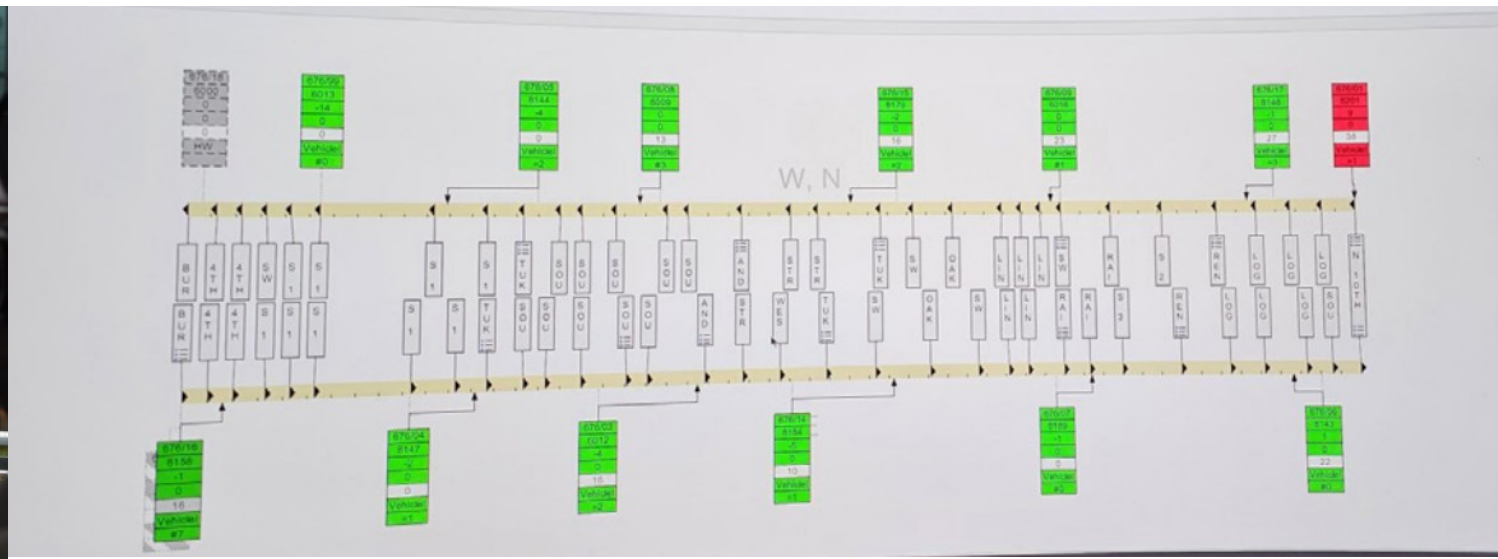
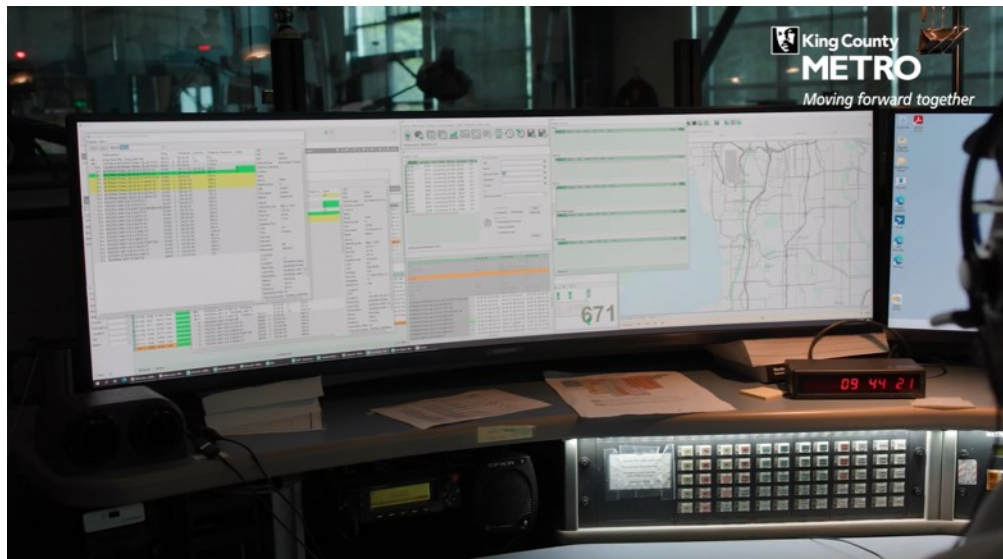
11:41 Mon, 17 Oct 100%

Vehicles

Vehicle	Type	Distance	Line	Status	Timetable	Block
3	Type: GT8-100D/2S-M Driver: -- LPN: --	663 m	107 to: S4 Heilbronn Pfuhlpark	Running Longchamps	-1 min Next: Châble	100121 Duty --
5	Type: GT8-100D/2S-M Driver: -- LPN: --	3 km	102 to: S32 Menzingen	At stop Neuchâtel, Place Pury	0 min Next: Oriette	100132 Duty --
6	Type: GT8-100D/2S-M Driver: -- LPN: --	14,2 km	301 to: S71 Bühl (Baden) (vorne: S81)	Running M St-Héliier	0 min Next: Etoile	10113 Duty --
7	Type: GT8-100D/2S-M Driver: -- LPN: --	14,8 km	301 to: S5 Fahrt endet. Bitte aussteigen	Running Abeille	0 min Next: Nord	10112 Duty --
8	Type: GT8-100D/2S-M Driver: -- LPN: --	15,1 km	304 to: --	At stop Bel-Air	0 min Next: Citadelle	10444 Duty --

TCC Coordinator

- Direct view of both ASM routes (RapidRide A & F Lines)
- Communicate with operators to help them maintain even headways
- Escalate issues to supervisors
- Communicate with cover bus operators and courtesy relief vehicle operators to ensure they are staging in the best location and know when to insert themselves into service



Cover buses

- One cover bus allocated per route
- Staged at strategic places throughout the route
- Will be inserted where there are big gaps in headways



Mobile Break Space and Courtesy Relief Vehicle

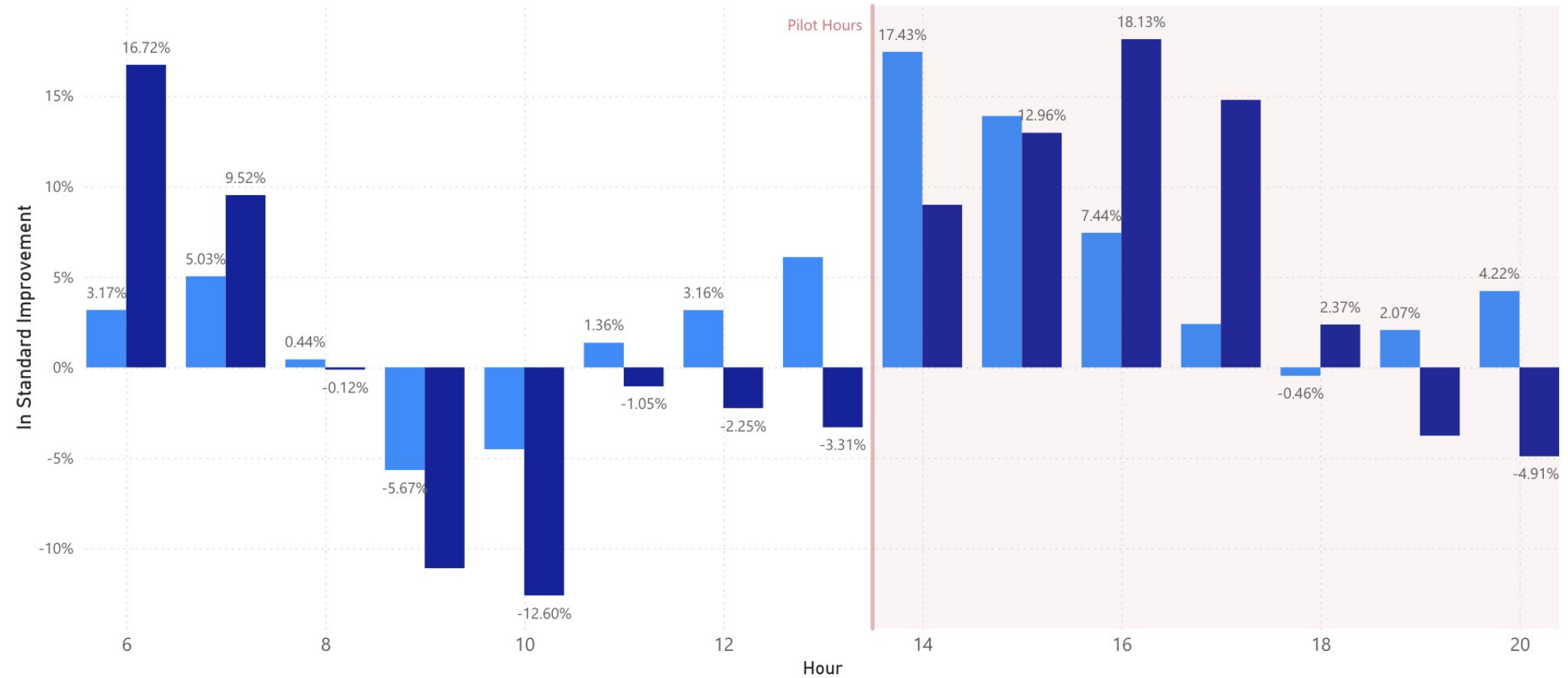
- Stationed at critical terminal
- Provides table, chairs, couch, sink, fridge, microwave
- Relief operator standing by with base car
- Coordinator dispatches them to relieve an operator mid-route
- Relieved operator take car to terminal, takes break, resumes route when bus arrives back at terminal



Performance through October during and outside of ASM hours of operation

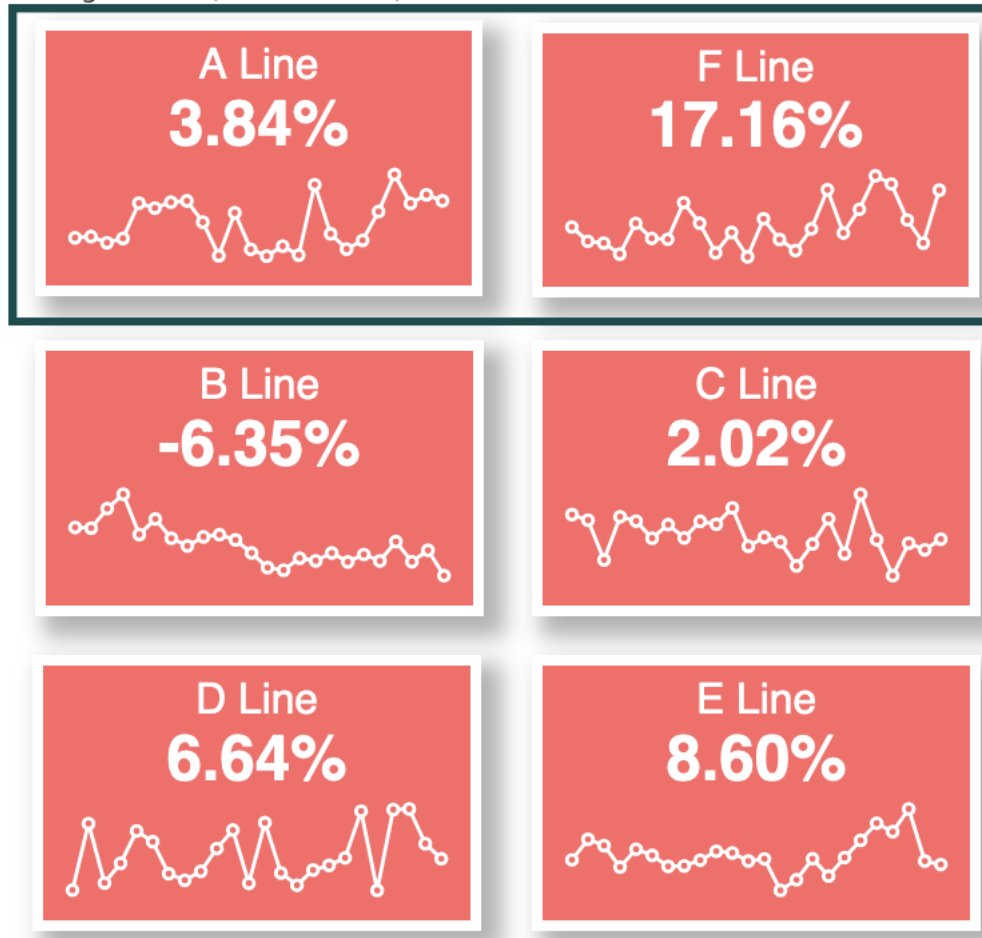
'In-Standard' Improvement from this time last year

● A-Line ● F-Line



Comparison with other RapidRide routes

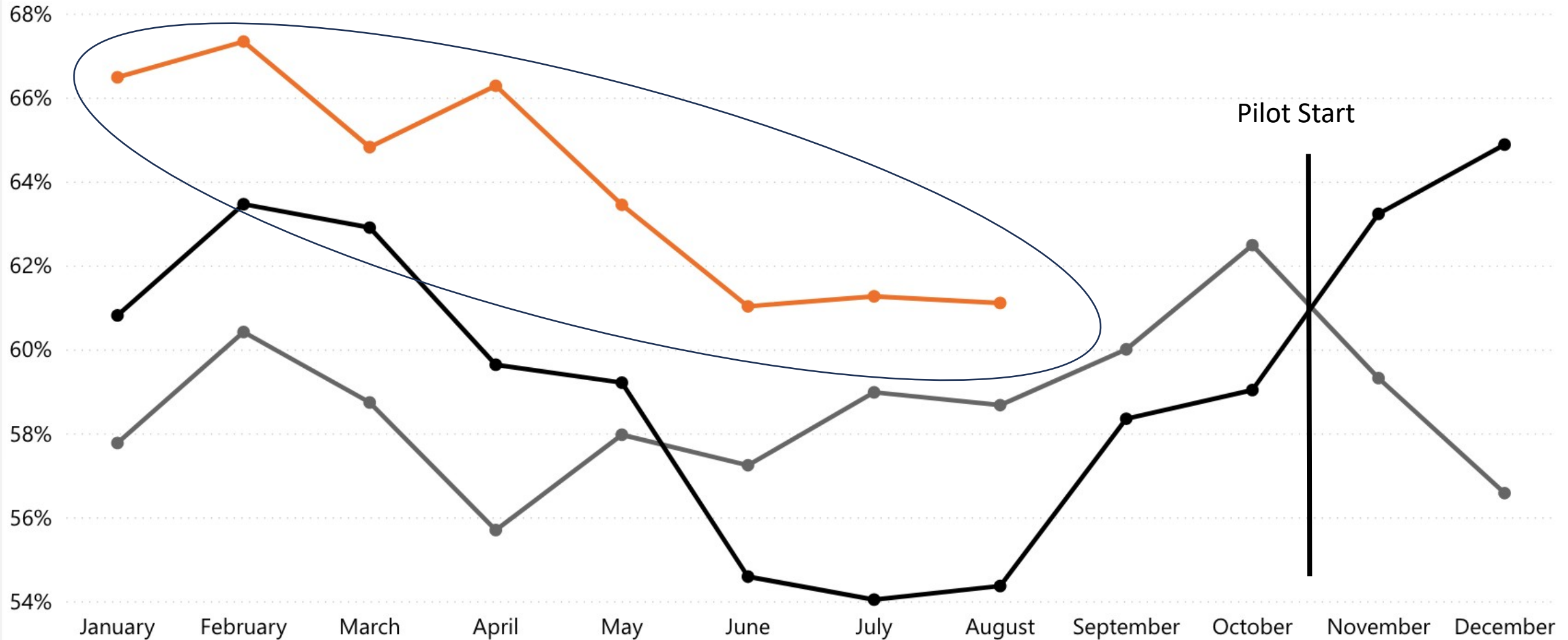
Reduction in Gapping vs Baseline
Target: -50% (lower is better)



Headway Adherence

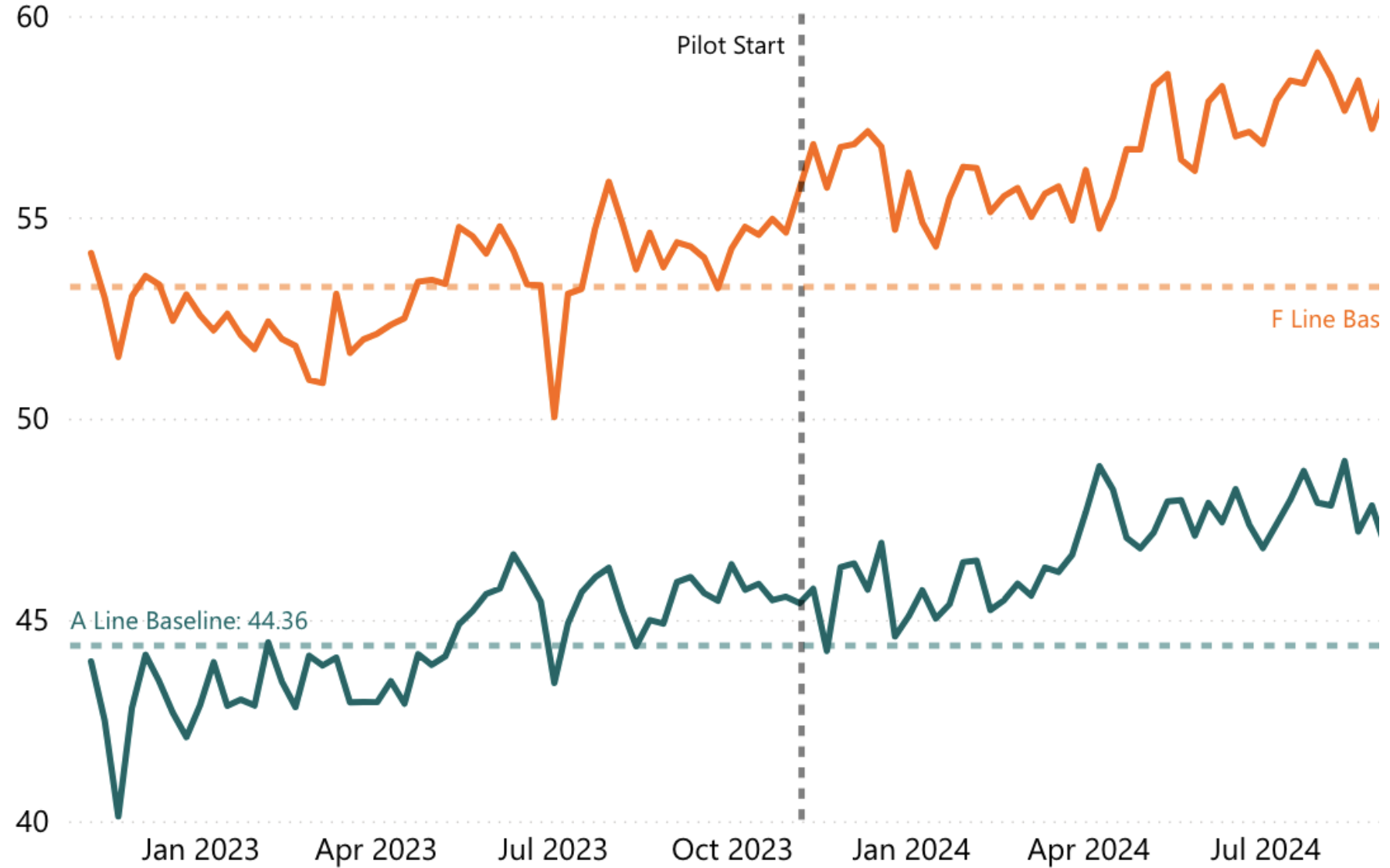
% In Standard

Year ● 2022 ● 2023 ● 2024



Average Actual Trip Travel Times (minutes)

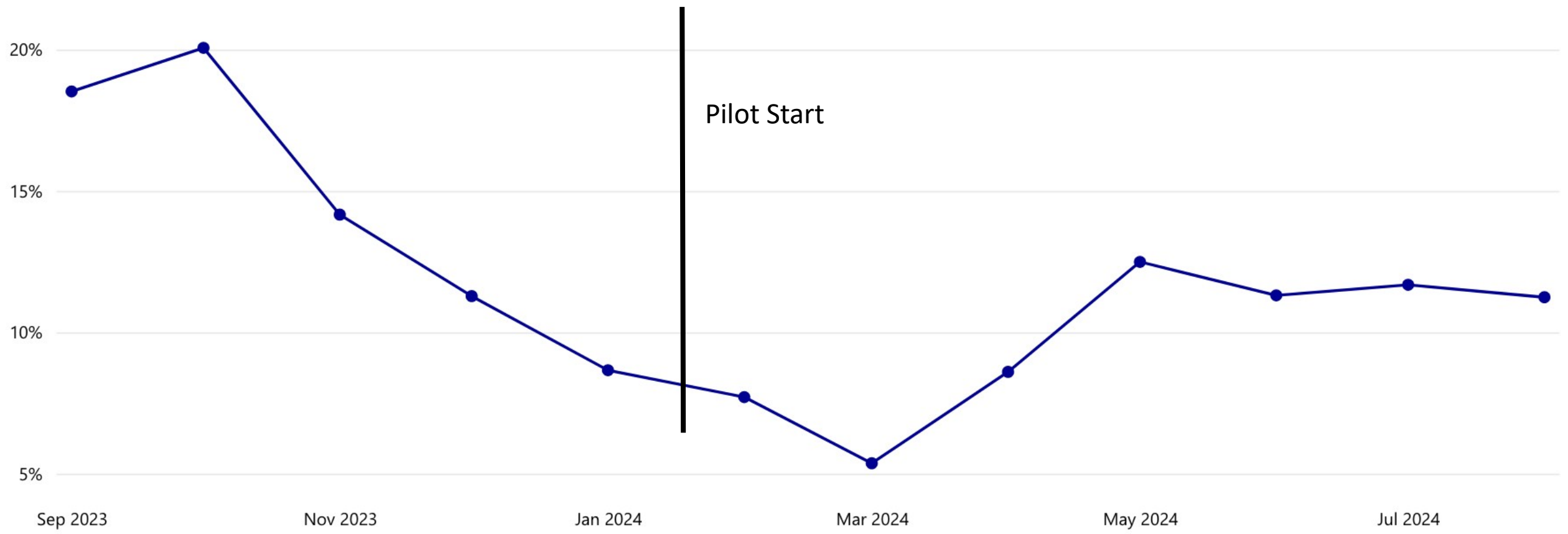
Route ● 671 ● 676



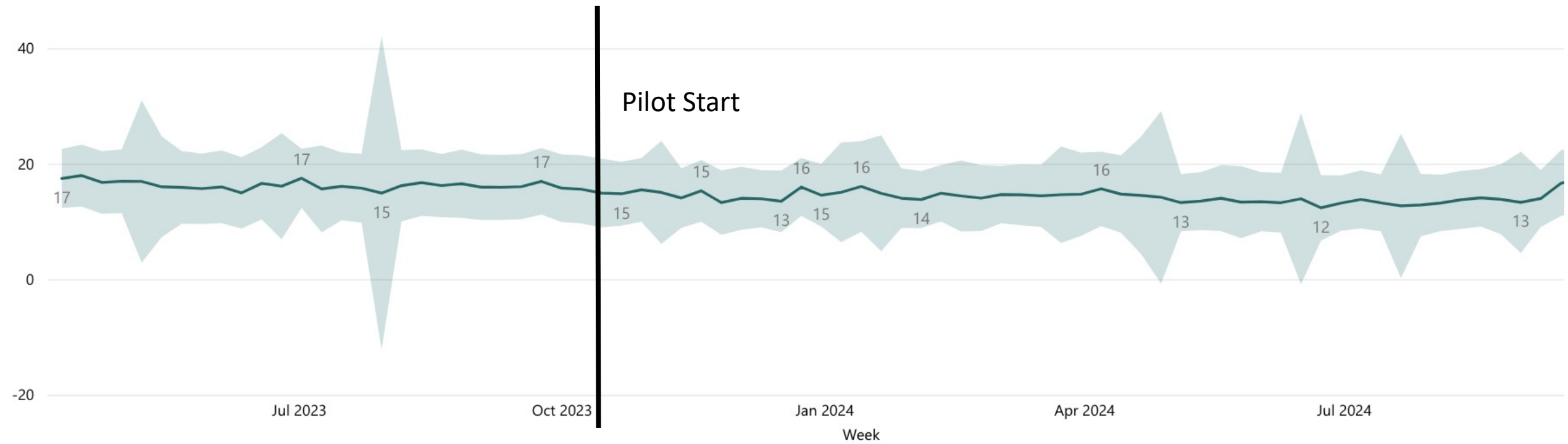
Breaks shorter than 8 minutes

% of Actual Layovers <8 min in Duration

● % of Actual Layovers <8 min in Duration ● Swiftly % of Actual Layovers <8 min in Duration



Median break time and standard deviation



Lessons learned and continuous improvement

- Engaging with Operators and stakeholders
 - Extensive Stakeholder Workshops
 - Tabling at bases
 - Focus groups
 - Operator survey
- Feedback from engagement
 - Driver's Display Unit
 - Operator Break Time
 - Customer interactions

Looking Ahead

Remainder of Pilot 2024

- Determine how to continue pilot while addressing staffing hurdles
- Integrate headway management with transit signal priority
- Use supervisors nudge operators to adhere to headways through random checks at bus stops

ASM in 2025 – Dependent on organizational approval

- Assess pilot operations for A and F RapidRide lines
- Expand to other RapidRide line or lines. Testing in Early 2025, full expansion in mid 2025.
- Courtesy relief vehicle expansion
- Test fallbacks

Glossary of terms

Headway	Time elapsed between the arrival of consecutive buses on a route
Bunching	When a bus is too close to the bus in front
Gapping	When a bus is too far from the bus in front
Layover	The act of parking and waiting at the end of a trip before the next trip starts.
Operator Break	Time for the operator to rest during a portion of the layover.
Fallback	When the operator hands off the bus to another operator after the completion of their trip and then takes their break, allowing the bus to immediately start a new trip.
Driver Display Unit	The computer unit on board the bus that passes information to the operator.
Mobile Break Space	Van outfitted with couches, tables, fridge, and microwave for operators to take a break at terminals
Courtesy Relief Vehicle	Car that allows a relief operator to relieve a regular operator mid route so they can take a required break.

Questions