



# Preview: Service Delivery Policy 2024 Updates

---

Preview of proposed changes to Service Delivery Policy

MBTA Board of Directors

October 24, 2024

# Introduction to SDP

- **The Service Delivery Policy: (1) sets the MBTA’s service quality standards and (2) defines how service delivery is measured against those standards.**
- The service objectives of SDP are broadly concerned with the **quantity of service provided**. Other MBTA objectives like safety and customer satisfaction are not traditionally part of the SDP remit.
- OPMI produces **annual, public-facing reports** evaluating service quality performance for the previous fall.
- The policy is revised periodically, and was last updated in 2021. This **2024 revision includes minor to moderate changes in both form and substance**, including stricter standards for measuring heavy rail and bus reliability, and some new accessibility measures.
- The policy edits concern **how the MBTA defines optimal service levels**; this is **not a proposal to make service changes**.

Service Objective	Metric
Service Availability	Span of Service
	Frequency of Service
	Coverage
Accessibility	Station / Stop Accessibility
	Ferry Dock Accessibility
	Elevator Uptime
	Platform Accessibility
	Vehicle Accessibility
Reliability	System Reliability
	Service Operated
Comfort/Crowding	Vehicle Crowding
(multiple)	Paratransit Standards

# Process and Timeline for Updating the Policy

- Completed: Review and refine changes with **internal stakeholders and MBTA leadership**; preview changes for **advocates**
- **Today: High-level preview** of proposed policy changes and process for BOD; no action requested
- November 13: Brief **MBTA Advisory Board** per MGL c. 161A, §5(p)
- November 14: **Public hearing** on proposed changes and start of 21-day **public comment period** (open through December 5).  
  
Draft policy and explanatory material posted on website at [mbta.com/policies/service-delivery-policy](https://mbta.com/policies/service-delivery-policy)
- December: After processing feedback, return to seek **final approval from Board** to adopt updates

# Substantive changes fall under four service objectives. These changes at a glance:

## Reliability

- Change method of analyzing **heavy rail reliability**, from On-Time Performance to Excess Trip Time to better reflect the rider experience.
- Change calculation for **bus reliability** to factor in dropped bus trips. Previously not possible due to insufficient data.
- Fine-tuning GL trunk headways.

## Accessibility

- New standards for **bus stop accessibility** and **ferry accessibility** (boats and docks).
- Revise how we **evaluate elevator closures** to eliminate some exceptions and count more closures as inaccessible platform time.

These changes are designed to better reflect the riders' experience, and to take advantage of new and better data sources that we now have available to us.

## Service Availability

- Streamline minimum **frequency standard for Frequent Bus Routes** (formerly KBR) to 15 minutes across the service day.
- **Redefine Span of Service** from “inside bounds” to “outside bounds” to better reflect the full service day.

## Comfort/Crowding

- Data is now available to measure crowding (as a proxy for comfort) on Heavy Rail.

# Summary of Substantive Changes

Service Objective	Metric	Change for 2024 edition of policy
Reliability	Heavy Rail Reliability	Change standard to use Excess Trip Time
	Bus Reliability	Change standard to penalize dropped trips
	Light Rail Reliability	Change standard for Green Line trunk headways
Accessibility	Bus Stop Accessibility	Add as new metric
	Ferry Accessibility	Add as new metric
	Platform Accessibility	Change how elevator closures are evaluated
Service Availability	Frequency of Service	Streamline Frequent Bus Routes (formerly Key Bus Routes) to 15 minute frequency
	Span of Service	Change definition from "inside bounds" to "outside bounds"
Comfort/ Crowding	Passenger Comfort	Add a measure of Heavy Rail comfort/crowding

# Initial Questions?

Following public engagement in November, we will return to the Board with a more detailed explanation of the changes and their anticipated effects.

# Appendix

---

- Additional detail on metric definitions and preliminary results



# RELIABILITY

---

- **Heavy Rail:** Metric changed to use Excess Trip Time
- **Bus:** Standard changed to penalize dropped trips
- **Green Line:** Standard changed for Green Line trunk headways

# About Reliability

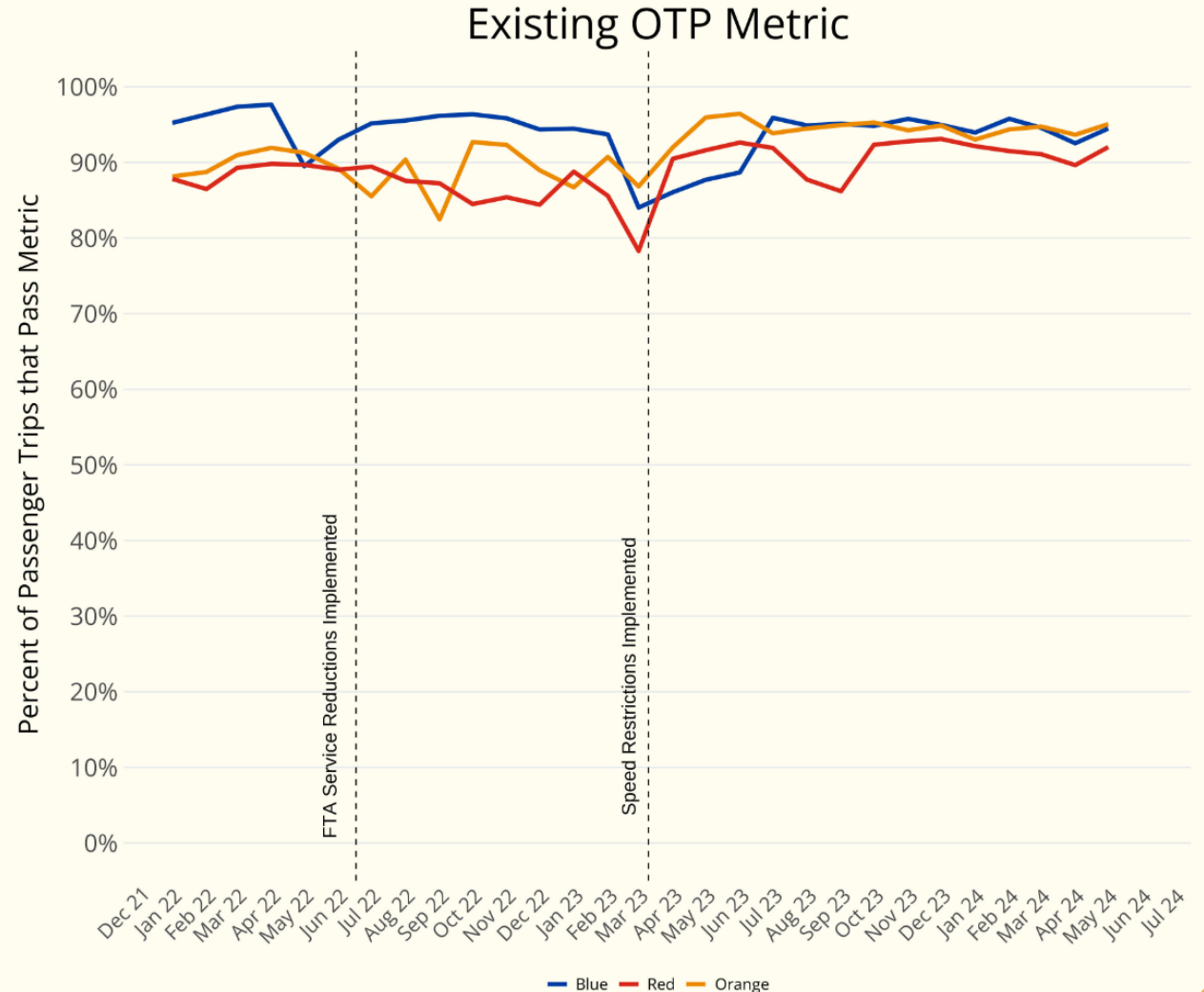
- **What portion of riders experience on-time service?**
- Riders should have predictable service that enables travel to destinations.
- Existing measures do not fully reflect rider experience.



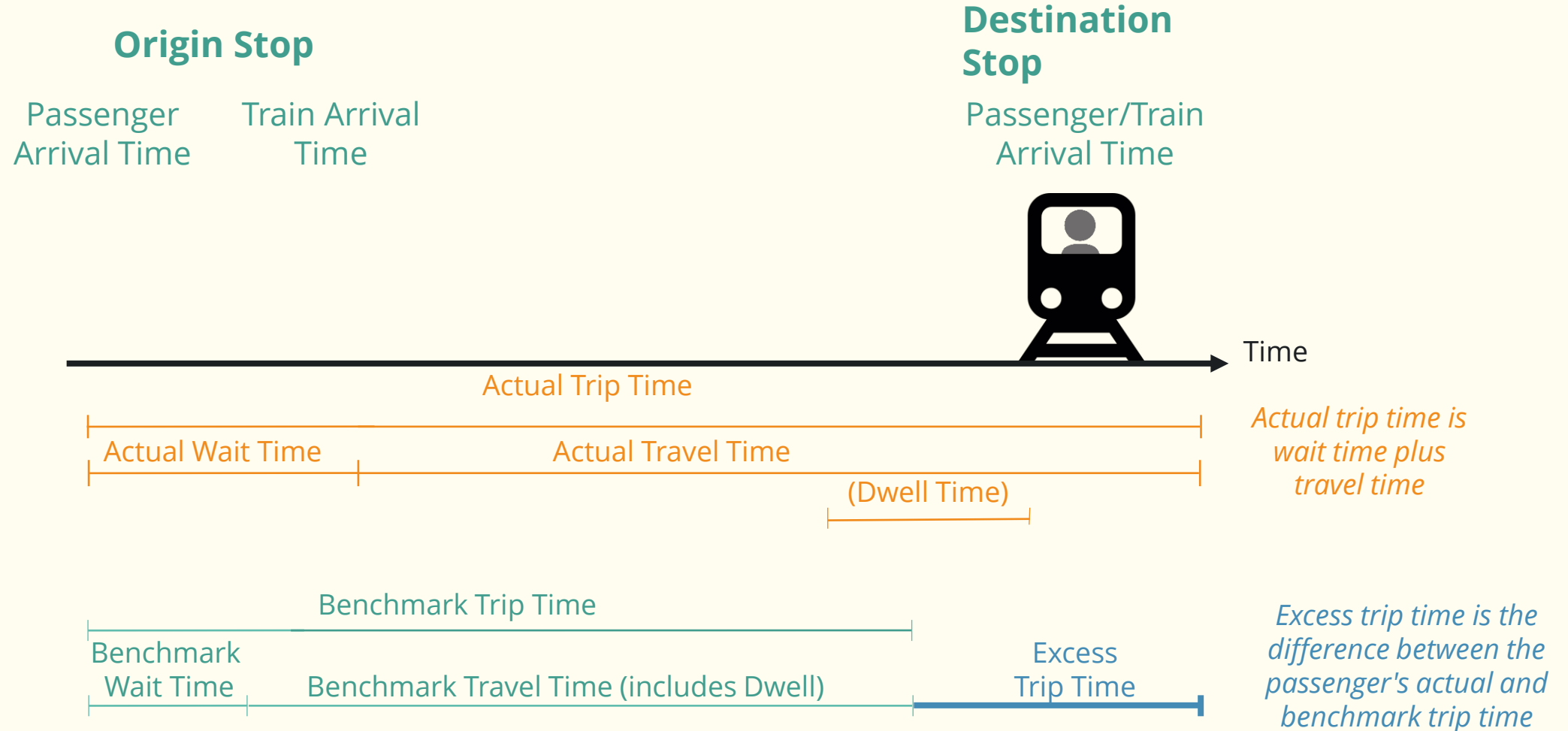
# Reliability Metrics

## On-Time Performance (OTP)

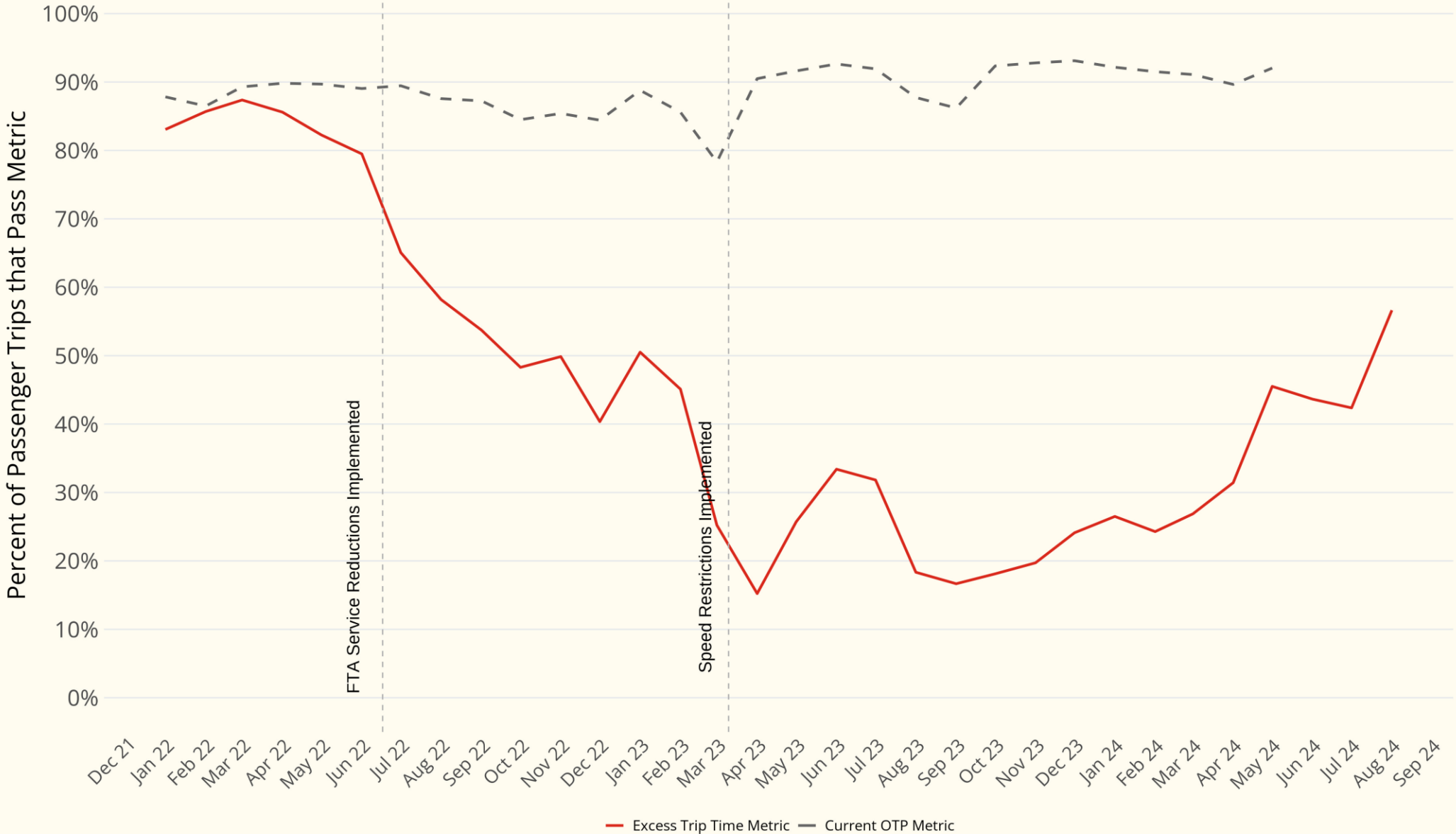
- Measures trip time against schedules
  - For infrequent service, scheduled departure times
  - For frequent service, scheduled headways
- Is calculated on operated trips (i.e., excludes dropped trips).
- Measures wait time, not travel time.
- Smooths out results within 30 minute periods for frequent service



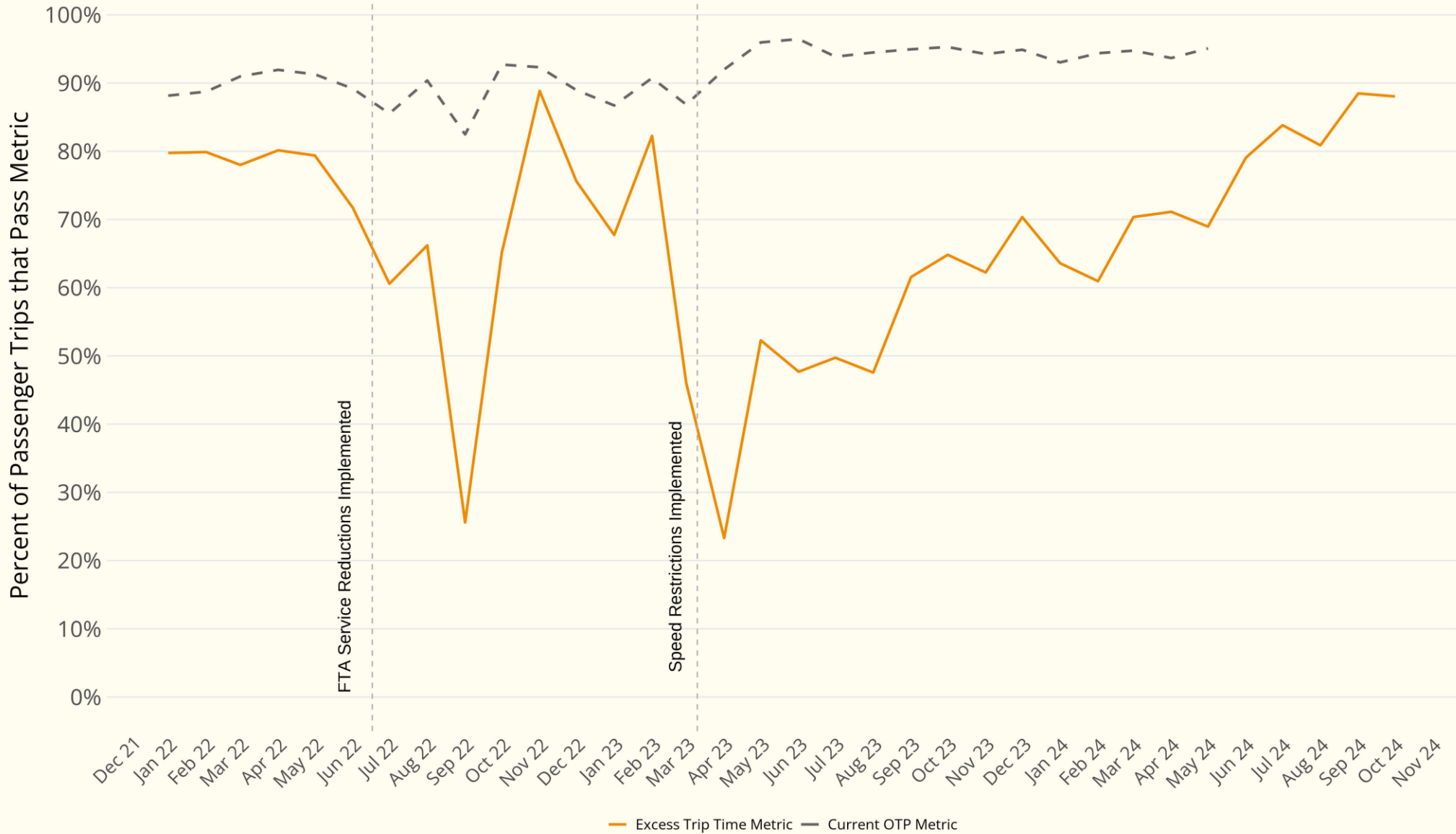
# Excess Trip Time Metric Example



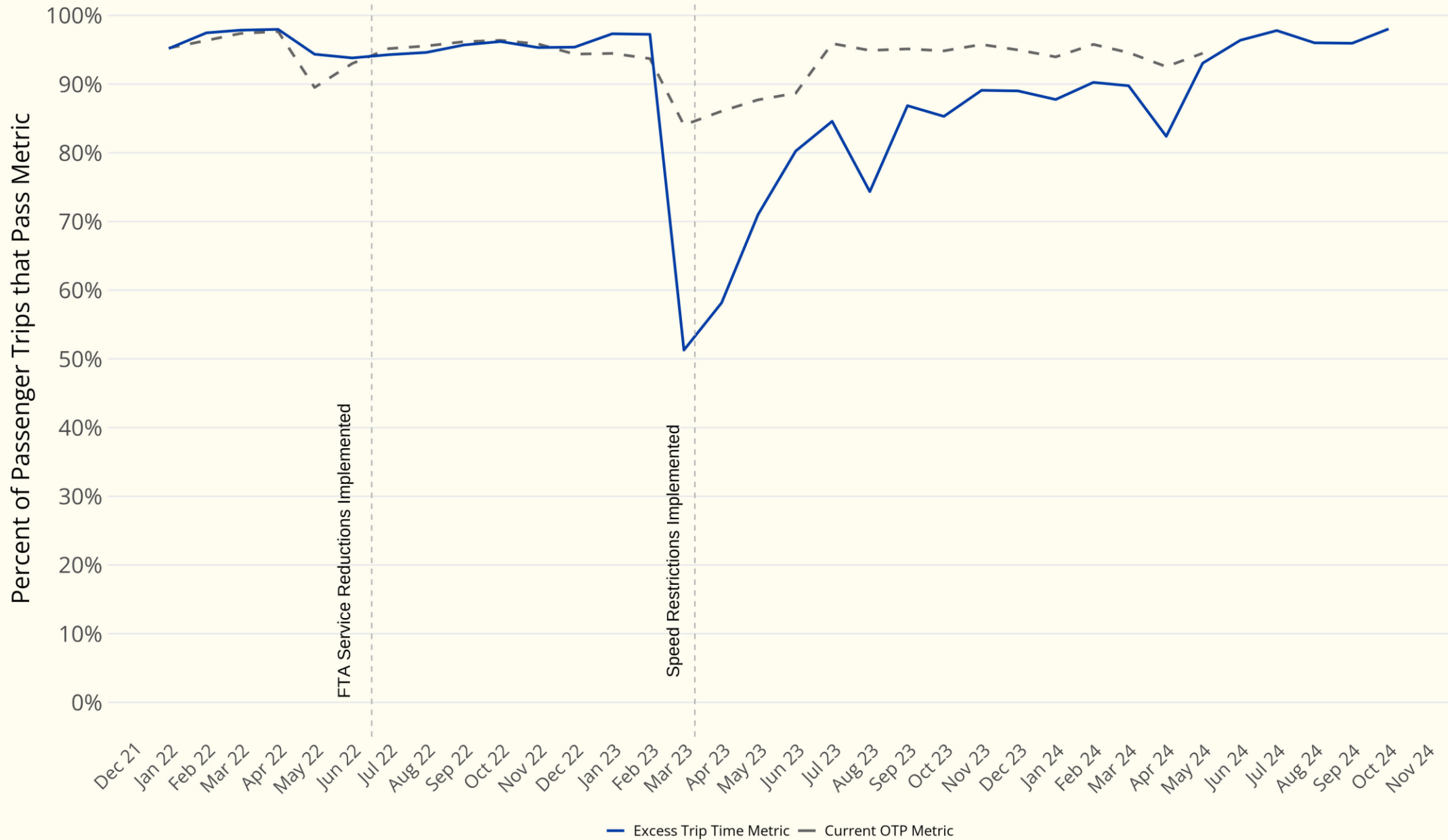
# Existing OTP vs ETT: Red Line



# Existing OTP vs ETT: Orange Line



# Existing OTP vs ETT: Blue Line



# Benchmark Times

- Benchmark times represent an estimate of high-quality service that the MBTA can deliver, based on actual best performance.
- Wait Times are estimated based on peak service frequencies with *existing* rolling stock.
- Travel Times are the fastest observed travel time *for each segment* (e.g., Harvard - Central) from any month since January 2021.



# Impacts on the Results: Heavy Rail

Day Type	Fall 2023 Overall Performance	
	2021 Policy	2024 Policy
Weekday	89.0%	46.7%
Saturday	86.2%	60.9%
Sunday	89.0%	58.7%

- Red line performance (18% of trips were within the baseline) was significantly worse than the Orange Line (60%) and the Blue Line (85%).

# What is Changing?

## **Bus:**

- *Before:* Dropped trips excluded from OTP calculation
- *After:* Dropped trips penalized within OTP calculation

## **Green Line trunk stops:**

- *Before:* expected headway set at 3 minutes
- *After:* expected headway set at 3 minutes or the scheduled headway, whichever is greater

## **Why we're changing them:**

- Bus and Green Line changes better reflect rider experiences of:
  - Delay associated with cancellations
  - Typical Green Line trunk headways at low-frequency times of day

# Impacts on the Results: Bus Reliability

Day Type	Fall 2023 Overall Performance	
	2021 Policy	2024 Policy
Weekday	66.7%	64.2%
Saturday	70.8%	69.2%
Sunday	71.5%	69.7%

- Frequent Routes score higher overall but often drop more trips than other bus route types and are thus impacted more by this method change.

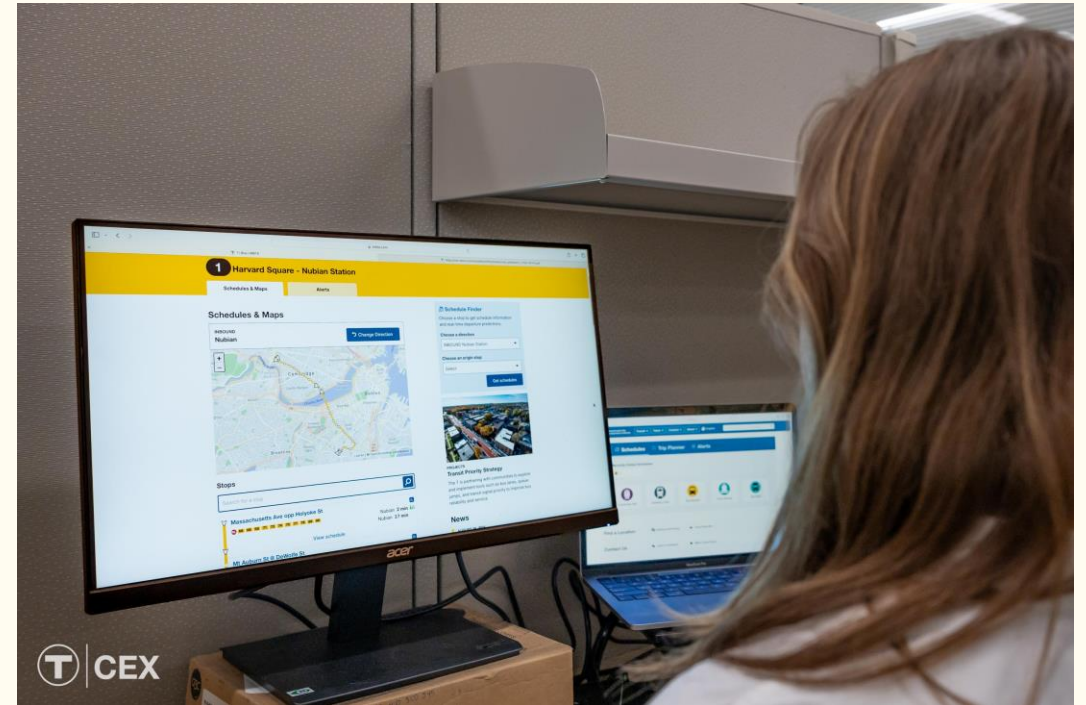
# SERVICE AVAILABILITY



- 
- **Span of Service:** Changing definition from “inside bounds” to “outside bounds”.
  - **Frequency of Service:** Frequent Bus Routes (formerly Key Bus Routes) streamlined to 15 minute frequency.

# About Service Availability

- **Are services being scheduled to run with sufficient hours of operation, trip frequencies, and geographic coverage?**
- Riders expect that services will be provided when and where they are needed in order to serve all their types of trips and work/life schedules



# What is Changing? Span

## Before:

- The definition used “inside bounds,” considering:
  - The arrival of the first run
  - The departure of the final run

## After:

- The definition uses “outside bounds,” considering:
  - The departure of the first run
  - The arrival of the final run

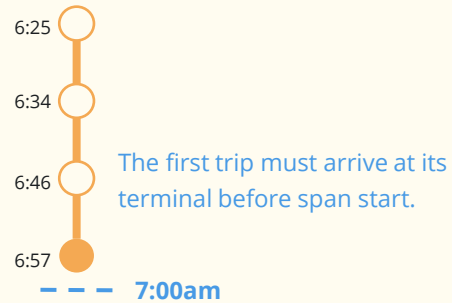
## Why we're changing it:

- This change will not impact schedules, but will better align with riders’ interest in how early/late they can access service.
- A more intuitive measure, it aligns with the approach taken by other agencies.

# What is Changing?

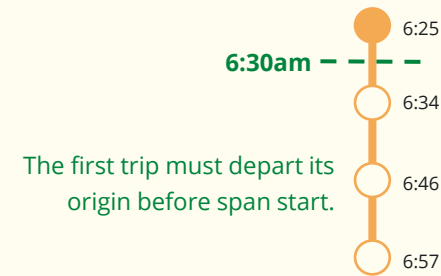
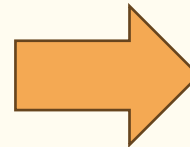
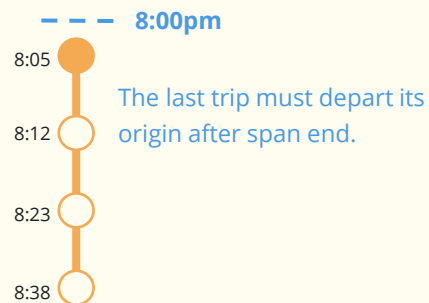
## Span Definition

Route Category	Span Start	Span End
Local Bus	7:00am	8:00pm
Frequent Bus	6:00am	12:00am
Heavy Rail	6:00am	12:00am
Light Rail	6:00am	12:00am
Regional Rail	7:00am	10:00pm
Ferry (year-round)	7:00am	6:30pm
Ferry (seasonal)	--	--



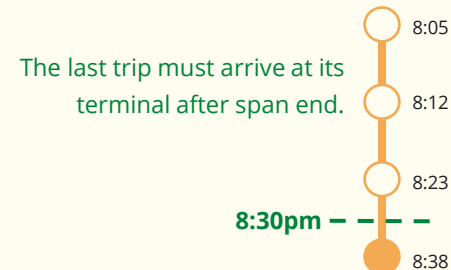
**2021**

"inside bounds"



**2024**

"outside bounds"



Route Category	Span Start	Span End
Local Bus	6:30am	8:30pm
Frequent Bus	5:30am	12:30am
Heavy Rail	5:30am	12:30am
Light Rail	5:30am	12:30am
Regional Rail	6:00am	10:30pm
Ferry (year-round)	7:00am	8:00pm
Ferry (seasonal)	7:00am	7:30pm

# What is Changing? Frequency

Expected average headways for Frequent Routes (Bus)

- **Before**
  - 10min at AM/PM Peak
  - 15min at early AM & midday
  - 20min for evenings & weekends
- **After:**
  - 15min at all times

## Why we're changing it:

- A simplified, consistent standard is more approachable and intuitive
- More accurate description of service as it is delivered
- Aligns with:
  - New Frequent Route definition and signs



# Impacts on the Results: Frequency

Day Type	Fall 2023 Performance Frequent Routes (Bus)	
	2021 Policy	2024 Policy
Weekday	91.4%	95.4%
Saturday	100%	75.4%
Sunday	100%	62.8%

- The tighter weekend standards did not exist when Fall 2023 schedules were being planned
- Planned improvements to the bus system are expected to:
  - increase the total number of Frequent Routes
  - improve their scores over time through added service

# ACCESSIBILITY



- 
- **Vehicle Accessibility:** New definitions allow MBTA to evaluate bus stop and ferry accessibility.
  - **Platform Accessibility:** Refined analysis of elevator uptime.

# About Accessibility

- **What portion of MBTA services are accessible?**
- Riders of all abilities should be able to access MBTA services.
- Existing measures do not cover all modes.



# Accessibility: What are we Adding?

New accessibility measures for:

- **Bus stops**
  - as part of Station Accessibility
- **Ferry docks**
  - Standalone metric (since dock accessibility can vary within a single terminal / station)
- **Ferry boats**
  - as part of Vehicle Accessibility

**Why we're adding them:**

- Ensure accessibility is measured across modes.

Data collection is in progress for the Fall 2024 SDP report.

# Accessibility: What is Changing?

## Platform Accessibility calculation:

- *Before:* Elevator outages during which shuttle alternatives are provided were counted as accessible platform hours
- *After:* All elevator outages count as inaccessible hours except for specific situations (e.g., elevator replacement), which are excluded from the calculation.

## Why we're changing it:

- Accessible shuttle alternatives often don't provide riders with the same quality of service they would get with an operational elevator
- New language more precisely follows the *Daniels-Finegold* settlement agreement

# Impacts on Results

Fall 2023 Performance	
2021 Policy	2024 Policy
99.4%	97.6%

- Several of the longest elevator outages from Fall 2023 would no longer be counted as fully accessible platform hours under the new policy

# COMFORT/CROWDING



---

- Crowding as a measure of passenger comfort is newly measured for Heavy Rail; was previously only available for bus.

# About Passenger Comfort

- **What portion of passenger hours are spent in comfortable conditions?**
- Comfort is a measure of crowding
- The SDP sets maximum passenger loads for a ride to be safe & comfortable





# Comfort: What are we Adding?

- **Before**
  - There was no metric for comfort on Heavy Rail
- **After:**
  - Report Heavy Rail comfort

## Why we're adding it:

- Previously, data were only available to calculate passenger comfort for Bus, new data sources are now available.

# Minor changes to the policy:

- New executive summary to replace repetitive introductory text
- Replacing long glossary with embedded definitions
- Re-ordering some sections to describe services and objectives in a more logical way
- Updated terminology: “Key Bus Routes” are now “Frequent Routes”; “Commuter Rail” referred to as “Regional Rail”; “Community” routes are now “Coverage”
- Updates to various route and fleet descriptions, including newer ferry services, updated fleet listings (relevant for vehicle load and crowding standards) and revision of bus route designations
- Added description of Diversion Service Standards, which were adopted in Fall 2023 to govern alternative service planning during pre-planned rapid transit diversions
- Metrics relating to Paratransit customer service were removed (to be reported elsewhere) as they are not service delivery metrics.